BACK ON TRACK

Addressing poor performance of healthcare professionals

JAN-WILLEM WEENINK

BACK ON TRACK

Addressing Poor Performance of Healthcare Professionals

Jan-Willem Weenink

The studies presented in this thesis have been conducted at the Scientific Center for Quality of Healthcare (IQ healthcare). IQ healthcare is part of the Radboud Institute for Health Sciences (RIHS), one of the approved research institutes of the Radboud University Medical Center.

Chapter 2, 3 and 5 were funded by ZonMw, the Netherlands Organisation for Health Research and Development (project number 516001002).

Financial support by IQ healthcare for the publication of this thesis is gratefully acknowledged.

ISBN: 978-94-6361-071-1

Nijmegen, 2018

Cover design, lay-out and print by Optima Grafische Communicatie (OGC)

BACK ON TRACK

Addressing Poor Performance of Healthcare Professionals

Proefschrift

Ter verkrijging van de graad van doctor
aan de Radboud Universiteit Nijmegen
op gezag van de rector magnificus prof. dr. J.H.J.M. van Krieken,
volgens besluit van het college van decanen
in het openbaar te verdedigen op maandag 16 april 2018
om 12.30 uur precies

door
Jan-Willem Weenink

geboren op 3 juni 1987
te Arnhem

Promotoren:	Prof. dr. G.P. Westert Prof. dr. R.H.M.A. Bartels
Copromotor:	Dr. R.B. Kool
Manuscriptcommissie:	Prof. dr. H. van Goor Prof. dr. H.A.M. Marres Prof. dr. M.J.M.H. Lombarts (Universiteit van Amsterdam)

TABLE OF CONTENTS

Chapter 1	**General Introduction**	7
Chapter 2	**Am I My Brother's Keeper?**	23
Chapter 3	**The Disciplined Healthcare Professional**	41
Chapter 4	**Getting Back On Track**	57
Chapter 5	**Supporting Healthcare Professionals**	97
Chapter 6	**Discussion**	117
	Summary in English	136
	Summary in Dutch	138
	Acknowledgements	140
	About the author	143
	List of publications	144

Chapter 1

General Introduction

This chapter provides an introduction to poor performance of healthcare professionals. It describes what we know about the prevalence and consequences of poor performance, and presents different aspects that are important in addressing poor performance. It also elaborates on the context and the aims of the research, and concludes with an outline of the thesis.

WHAT IS POOR PERFORMANCE?

Performance can be described as what a professional shows in practice, and may include both the *functioning* of the professional and the *output* of that functioning.[1, 2] Poor performance refers to situations where performance does not meet predefined norms and values. These situations may range from a single incidence to longer periods of poor performance. Examples of poor performance of healthcare professionals include incorrect diagnosis and treatment, inadequate record keeping and inappropriate behaviour. There is no single accepted operational definition of poor performance.[3] The Dutch Health Care Inspectorate (IGJ) defines poor performance as a pattern of irresponsible healthcare delivery or shortcomings in professional competencies, that are harmful or potentially harmful to patients and in which the professional is not able to recover by him- or herself.[4] Other national and international definitions share elements of this definition, with the General Medical Council in the United Kingdom defining a poorly performing doctor as a physician whose competence, conduct, or behaviour poses a potential risk to patient safety or to the effective running of a clinical team.[3]

Poor performance may have serious underlying causes; examples include mental and behavioural problems such as depression or substance abuse, physical impairment, and the failure to maintain or acquire knowledge and skills.[5] Causes of poor performance frequently overlap and multiple factors may contribute to the onset and continuation of poor performance. These factors may relate to the professional (e.g. a lack of self-reflection) and to the professional's work environment (e.g. team climate or organisational culture). Previous studies suggest that poor performance often occurs as an interplay between the professional and his or her professional context.[3] Stressors from the personal environment, such as family strife, can also contribute.[5] The potential overlap and relationship between factors is illustrated by research into conflicts in the work-home interface. Such conflicts, where work might interfere with family life or vice versa, have previously been associated with emotional exhaustion (the main dimension of burn-out) among doctors.[6] In studying poor performance, it is therefore important to realise that multiple factors on different levels can play a role. Broadly, we can categorise these into factors related to the individual (endogenous) or environment (exogenous), and factors specifically related to work (professional) or the professional's personal life (personal) (see Table 1).

It is highly unlikely that a professional starts performing poorly from one day to the next, and often periods of suboptimal performance precede the onset of poor performance. Poor performance is often said to be a slippery slope; causes and factors build up and without adequate intervention, performance degrades over time.

Table 1. Examples of individual and environmental factors from professional and personal life that can influence the onset and continuation of poor performance

	Professional life	Personal life
Individual (endogenous)	Lack of clinical knowledge Poor self-reflection	Physical or mental health Personality characteristics Attitude
Environmental (exogenous)	Supervisor pressure Team climate Organisational culture	Personal issues (e.g. family strife)

Prevalence of poor performance

Several studies have measured the prevalence of single underlying causes or characteristics of poor performance of healthcare professionals, with a majority of research focusing on physicians. Studies into substance abuse show similar or even higher rates for healthcare professionals than the general population.[7, 8] It is estimated that as many as 10% to 15% of all healthcare professionals will misuse drugs at some time during their career.[9] Studies into mental health problems also suggest similar or higher rates for healthcare professionals compared to the general population, with reported prevalence rates of depressive symptoms and depression of up to 30% in junior doctors.[10-12] Reported prevalence rates of burnout in healthcare professionals vary but also show high rates. A literature review of burnout syndrome in critical care workers concluded that burnout is present in about 50% of critical care physicians and in one third of critical care nurses, whereas another review of burnout in emergency nurses reports an average rate of 26%.[13, 14] The prevalence of disruptive behaviour has mainly been derived from studies on experiences with such behaviour in the workplace, estimating a prevalence rate of approximately 5% for physicians.[5, 15]

Determining the prevalence of poor performance in general seems to be more complicated, and previous studies have used different methods to do so. Some have used referral rates for performance assessment as an indicator for prevalence of poor performance. An observational study in the United Kingdom identified the number of doctors referred to the National Clinical Assessment Service (NCAS) for performance concerns between 2001 and 2011, and identified that such concerns affected 0.5% of the medical workforce.[16] It is, however, unlikely that those referred for assessment concern all poor performers in the medical workforce. Other studies have assessed rates of professionals disciplined by regulatory or disciplinary boards. Between 2000 and 2009, professional

colleges in Canada disciplined 0.06% to 0.11% of licensed physicians each year.[17] It is again, however, unlikely that these concern all underperformers, and furthermore, sanctions could also be related to reasons other than poor performance (for example, fraud). A Dutch interview study with experts on performance concluded that a prevalence rate of 5% for poor performance seems realistic, though the authors conclude that sound data to back-up this estimate is lacking.[3] Based on studies of single underlying causes of poor performance, it has been estimated that when combining all possible causes of poor performance, one in three physicians will experience a period during their career in which they are not able to practice medicine safely.[5]

Consequences of poor performance

Poor performance of individual healthcare professionals can have serious consequences for patient safety and may harm individual patients. A study on doctors that were disciplined between 2000 and 2009 for professional misconduct in Australia and New Zealand, reported that in 9% of cases physical harm to patients occurred and patient death occurred in 8% of cases.[18] The most prevalent outcome for affected patients, however, was being upset at what had happened. Additionally, poor performance can have a range of other consequences. It can have a significant psychological impact on the professional involved, who may experience distress, anxiety and fear.[19] It may have a negative impact on the professionals' relationship with colleagues,[20] and may have a negative impact on the healthcare organisation, for example, on the reputation of the organisation and on finances. A study that reviewed costs associated with disruptive behaviour of physicians found that the combined costs for these behaviours exceeded $1 million in a 400-bed hospital.[21] These costs were due to staff turnover, medication errors and procedural errors. Lastly, poor performance may undermine society's trust in the healthcare system. Previous research showed that local incidents (covered in the media) influence the local populations' trust in healthcare.[22]

ADDRESSING POOR PERFORMANCE

The potential consequences of poor performance emphasise the importance of addressing poor performance promptly and adequately. In addressing poor performance, several aspects seem to be of importance.

Signalling poor performance

To be able to adequately address performance problems, it is first necessary for performance concerns to be signalled. Signals can come from different sources, and these signals can broadly be categorised in either **people or systems**. Examples of the former are patients who experience poor performance and may decide to address their experi-

ences with the healthcare professional or file a complaint, and other healthcare professionals who might observe and address poor performance in practice. A review of poor performance in a district of the United Kingdom found that the Primary Care Trust was most often alerted about poorly performing professionals by professional colleagues, followed by patient complaints.[23] Additionally, systems may be in place that may detect poor performance. Examples are the intelligent monitoring of general practice using performance indicators by the Care Quality Commission (CQC) in the United Kingdom, and the Danish Health and Medicine Authority (DHMA) that can access all healthcare data, for example from complaints systems and accreditation programmes, to focus its inspections based on risk areas, risk personnel and risk organisations.[24, 25]

Furthermore, signals of poor performance can either be **direct or indirect**. Signals may be directly observed by or sent to people or organisations that have the opportunity to act on the poor performance, such as the poorly performing professional him/herself, a supervisor or regulatory bodies. Examples are the observation of poor performance by a clinical manager, or a patient filing a complaint to a disciplinary council. Indirect signals may include coverage of a poorly performing healthcare professional in the media and patient experiences on social media or physician rating websites.[26] A previous study observed an association between low patient ratings and hospitals judged to be underperformers by the healthcare inspectorate.[27] For individual professionals, no similar studies have been conducted. A difficulty with this is that the number of reviews of an individual professional are often low. A person or organisation that has the mandate to act, might notice or be notified of indirect signals and undertake action.

Assessment of poor performance

After poor performance has been signalled, it is important to assess if the signal reflects a true situation of poor performance. The assessment of fitness for work has previously been defined as the determination of whether an individual is fit to perform his or her tasks without risk to self or others.[28] Three levels of assessment are distinguished: screening of whole populations of professionals (level 1), targeting of 'at risk' groups, for example older professionals or professionals with a foreign license (level 2), and assessing individual professionals who may be performing poorly (level 3).[29] Assessment can either be **internal or external**. Internal assessment may include a healthcare organisation that decides to investigate potential poor performance of one of its employees. External assessment includes the assessment of poor performance by external stakeholders, such as regulatory bodies and license boards. In the United Kingdom, some assessments of impaired physicians may occur at a local hospital level, but complex or persistent problems are referred to the National Clinical Assessment Service (NCAS).[30] In the Netherlands, complaints about physicians might be assessed

by complaints committees on a hospital level, by disciplinary boards on a regional or national level or by the Healthcare Inspectorate (see chapter 3).

Taking measures against poor performance

When poor performance has been demonstrated, adequate measures need to be taken. These measures can be taken from a **punitive or non-punitive** perspective. An example of the former is sanctioning the healthcare professional for poor performance, for example by revoking his or her license. An example of the latter is a mandatory educational course or rehabilitation programme that addresses the underlying cause(s) of poor performance. There might, however, not always be a clear distinction between punitive and non-punitive measures, and measures that might have a corrective and learning purpose, could be experienced as punitive by the recipient of that measure (see Chapter 3). Additionally, measures can be categorised in **formal and informal** measures. The examples above could be considered formal, in that they are officially imposed on the poorly performing professional. Informal measures could concern colleagues that avoid a poorly performing professional and divert patients away from the professional.[31]

Remediation or rehabilitation to an adequate performance level

An important final step of addressing poor performance is to ensure that the professional remediates or rehabilitates to an adequate performance level. Remediation focuses on deficiencies in knowledge or skills, whereas rehabilitation focuses on recovery from mental, physical or behavioural problems. Institutional programmes could facilitate this, as well as state- or nationwide **programmes.** Examples of the latter are Physician Health Programs (PHPs) for impaired professionals, which have been around in the United States for several decades. These programmes are designed to address the cause of impairment (often substance abuse) and assist the professional with re-entry into clinical practice (see chapter 4). When the professional undergoes successful treatment and on-going follow-up management, punitive action is rarely taken.[9] But also when sanctions are taken, on-going follow-up is important since previous research showed that sanctioned professionals show high levels of recidivism.[32]

Prevention of poor performance

Poor performance only affects a small number of healthcare professionals. For all healthcare professionals though, it is important that adequate performance is maintained. **Evaluation of performance** may help professionals to maintain adequate performance and prevent poor performance. Insight is fundamental in the maintenance and improvement of performance, and a lack of insight is a common characteristic of poorly performing healthcare professionals.[33, 34] In healthcare, evaluating individual performance to identify areas of improvement has become increasingly common in

recent years, for example through multisource feedback (MSF) in which feedback is acquired from sources such as colleagues, other healthcare professionals and patients.[35] In the Netherlands, as of 1 January 2020 evaluating individual performance will become mandatory for medical specialists and general practitioners who want to re-register their license.[36, 37] Additionally, continuing professional development (CPD) aims to expand knowledge, skills and attitude, grounded on the tradition of life-long learning.[38]

In this thesis, we distinguish the above five phases in addressing poor performance: (1) prevention of poor performance, (2) signalling poor performance, (3) assessment of poor performance, (4) taking measures against poor performance, and (5) remediation/rehabilitation to an adequate performance level. These phases are not necessarily subsequently followed, nor are they always clearly separate phases in time. For example, signalling poor performance might result in the specific professional to remediate without assessment or measures being necessary. Assessment, in the case of level 1 and level 2 assessment, could also act as a signalling method. The phases do, however, provide us with a framework that emphasises different aspects that are of importance when it comes to addressing poor performance, and from a research perspective, provide us with different aspects to study (see Figure 1).

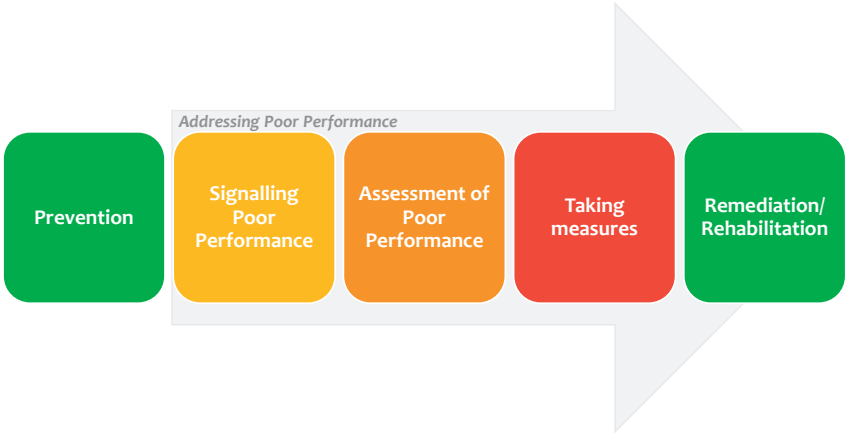

Figure 1. Phases in addressing poor performance

RESEARCH CONTEXT

This thesis focuses on dealing with poor performance of healthcare professionals in the Netherlands, and takes a patient safety perspective (see Box 1). Healthcare professionals are defined as professionals of one of the eight healthcare professions for which a license is required in the Netherlands (BIG article 3): dentists, midwives, nurses, pharmacists, physicians, physiotherapists, psychologists and psychotherapists. Self-regulation, particularly of the medical profession, is an important aspect of the Dutch system.[39] Individual healthcare professionals are assumed to act upon circumstances that may threaten patient safety, including performance concerns about other healthcare professionals. Healthcare organisations are responsible for the performance of individual professionals in their organisation. Furthermore, professional associations have an important role in professional governance.[40] They are responsible for re-registration schemes and aim to defend the interests of their members and promote the quality of the profession, for instance by developing professional guidelines or facilitating education to update knowledge and skills.[40, 41] Nonetheless, there is an important role for the primary regulatory body, the Health Care Inspectorate (IGJ), as well. The Inspectorate has set minimum standards for healthcare organisations that act as an accountability mechanism in the form of accreditation. Additionally, the Inspectorate may itself look into concerns regarding individual healthcare professionals at its own instigation, and could take measures against a specific professional or may direct performance concerns to the disciplinary boards.

Box 1. Poor performance from a patient safety perspective

This thesis takes a patient safety perspective. Two general approaches have been proposed in the literature for improving patient safety. One focuses on things that go wrong in healthcare. It tries to find risks for, or causes of, medical failures and tries to fix them. It has been described as a Safety-I approach. The other focuses on those things that go right and tries to learn from them, described as a Safety-II approach.[42] Our research uses the Safety-I approach. Using this approach, it is relevant to look at the literature on patient safety incidents. Such incidents have been increasingly explained as a result of faulty healthcare systems or processes.[43] Improving patient safety therefore relies on designing safer healthcare systems. At the same time, it has been suggested that the performance of individual healthcare professionals should also be considered when addressing patient safety.[44] The road to patient safety runs, according to some, through the healthcare professionals who deliver care.[45] This means that the system around healthcare professionals should be organised in such a way that it promotes optimal performance. Additionally, poor individual performance should be addressed promptly and adequately, as it constitutes a risk to patient safety. In this thesis, we specifically focus on addressing poor performance of the individual healthcare professional for improving patient safety.

GOAL, RELEVANCE AND OUTLINE OF THIS THESIS

This thesis primarily follows from a research project conducted within the Academic Collaborative Centre on Supervision. In this Academic Collaborative, four research institutes and the Health Care Inspectorate cooperate. The Centre gives the Inspectorate the opportunity of proposing research topics that are currently relevant in its own practice. Previous explorative studies within the Academic Collaborative focused on the scope of poor performance and strategies of different stakeholders. These studies served as input for the Inspectorate's annual State of Health Care publication in 2013 on performance of individual healthcare professionals.[46] In this publication, the Inspectorate emphasises the responsibility of professionals, healthcare organisations and professional associations, and describes several prerequisites for addressing poor performance. Amongst other things, the Inspectorate necessitates a culture in which colleagues dare to question each other's choices and speak up when noticing things that go wrong (including professionals' performance). The Inspectorate furthermore urges professional associations to develop programmes that support poorly performing professionals in improving their performance. However, limited empirical research has been done on if, and how, professions take responsibility when it comes to addressing poor performance. Research that has been done has mainly been conducted abroad, and national discussions on the topic are often fuelled by incidents of individual performance failure that receive wide media attention.[47] The goal of this thesis is therefore to explore how healthcare professions in the Netherlands address poor performance, and the thesis aims to identify specific areas in which policy and practice could improve. The research questions that have been formulated for this thesis are presented in Box 2 and are followed by a description of each thesis chapter.

Box 2. Research questions in this thesis

Research question
How do healthcare professions and professionals in the Netherlands address poor performance of individual healthcare professionals, and how can this be improved?

Sub-questions
- What do healthcare professionals do when signalling a poorly performing colleague?
- What is the impact of the disciplinary process and imposed measures on healthcare professionals?
- What are the outcomes of remediation and rehabilitation programmes professionals with performance concerns?
- How are healthcare professionals supported in dealing with poor performance of themselves and of colleagues?

Chapter 2, ***Am I my brother's keeper?***, focuses on signalling poor performance. It describes a questionnaire study of healthcare professionals in the Netherlands about their knowledge and confidence in dealing with poorly performing colleagues, and their experiences with such colleagues.

Chapter 3, ***The disciplined healthcare professional***, focuses on assessment of, and taking measures against, poor performance. It describes an interview study of healthcare professionals whose performance was assessed and disciplined by the disciplinary tribunal in the Netherlands, and explores their experiences with the process and the impact it had on them.

Chapter 4, ***Getting back on track***, focuses on remediation and rehabilitation to an adequate performance level. It describes a literature study on the outcomes of programmes aimed at remediating/rehabilitating poorly performing healthcare professionals. Since there is no data available of Dutch programmes, the literature study takes an international scope.

Chapter 5, ***Supporting healthcare professionals***, focuses on all phases of addressing poor performance. It describes an interview study about current approaches of professional associations in the Netherlands in supporting healthcare professionals to deal with poor performance, both of themselves and of colleagues.

Chapter 6, ***Discussion***, summarises the main findings of this thesis, discusses these findings in comparison with (inter)national evidence, and describes the implications of these findings for policy and practice.

REFERENCES

1. Lombarts K. Professional performance van artsen: tussen tijd en technologie. Tweede, geheel herziene druk. Rotterdam: 2010 Uitgevers; 2016.
2. Lombarts K, de Die ACvan , Eyck van Heslinga HC, Hammerstein A. Functioneren en disfunctioneren. Pre-advies VGR 2016. Den Haag: Sdu Uitgevers; 2016.
3. van den Goor MM, Wagner CC, Lombarts KM. Poor Physician Performance in the Netherlands: Characteristics, Causes, and Prevalence. Journal of patient safety. Jul 2015.
4. Aanscherping definitie disfunctioneren. Utrecht: Inspectie voor de Gezondheidszorg; 2013.
5. Leape LL, Fromson JA. Problem doctors: is there a system-level solution? Annals of internal medicine. 2006;144(2):107-15.
6. Hertzberg TK, Ro KI, Vaglum PJ, Moum T, Rovik JO, Gude T, et al. Work-home interface stress: an important predictor of emotional exhaustion 15 years into a medical career. Industrial health. 2016;54(2):139-48.
7. Oreskovich MR, Kaups KL, Balch CM, Hanks JB, Satele D, Sloan J, et al. Prevalence of alcohol use disorders among American surgeons. Archives of surgery (Chicago, Ill : 1960). 2012;147(2):168-74.
8. Kunyk D. Substance use disorders among registered nurses: prevalence, risks and perceptions in a disciplinary jurisdiction. Journal of nursing management. 2015;23(1):54-64.
9. Baldisseri MR. Impaired healthcare professional. Critical care medicine. 2007;35(2 Suppl):S106-16.
10. Tyssen R, Vaglum P. Mental health problems among young doctors: an updated review of prospective studies. Harvard review of psychiatry. 2002;10(3):154-65.
11. Tyssen R. Health problems and the use of health services among physicians: a review article with particular emphasis on Norwegian studies. Industrial health. 2007;45(5):599-610.
12. Letvak S, Ruhm CJ, McCoy T. Depression in hospital-employed nurses. Clinical nurse specialist CNS. 2012;26(3):177-82.
13. Embriaco N, Papazian L, Kentish-Barnes N, Pochard F, Azoulay E. Burnout syndrome among critical care healthcare workers. Current opinion in critical care. 2007;13(5):482-8.
14. Adriaenssens J, De Gucht V, Maes S. Determinants and prevalence of burnout in emergency nurses: a systematic review of 25 years of research. International journal of nursing studies. 2015;52(2):649-61.
15. Leape LL, Shore MF, Dienstag JL, Mayer RJ, Edgman-Levitan S, Meyer GS, et al. Perspective: a culture of respect, part 1: the nature and causes of disrespectful behavior by physicians. Academic medicine : journal of the Association of American Medical Colleges. 2012;87(7):845-52.
16. Donaldson LJ, Panesar SS, McAvoy PA, Scarrott DM. Identification of poor performance in a national medical workforce over 11 years: an observational study. BMJ Qual Saf. 2014;23(2):147-52.
17. Alam A, Klemensberg J, Griesman J, Bell CM. The characteristics of physicians disciplined by professional colleges in Canada. Open Medicine. 2011;5(4):e166-72.
18. Elkin KJ, Spittal MJ, Elkin DJ, Studdert DM. Doctors disciplined for professional misconduct in Australia and New Zealand, 2000-2009. The Medical journal of Australia. 2011;194(9):452-6.
19. Chan ST, Khong PCB, Wang W. Psychological responses, coping and supporting needs of healthcare professionals as second victims. International nursing review. 2017;64(2):242-62.
20. Ullstrom S, Andreen Sachs M, Hansson J, Ovretveit J, Brommels M. Suffering in silence: a qualitative study of second victims of adverse events. BMJ Qual Saf. 2014;23(4):325-31.

21. Rawson JV, Thompson N, Sostre G, Deitte L. The cost of disruptive and unprofessional behaviors in health care. Academic radiology. 2013;20(9):1074-6.
22. van der Schee E, de Jong JD, Groenewegen PP. The influence of a local, media covered hospital incident on public trust in health care. European journal of public health. 2012;22(4):459-64.
23. Cox SJ, Holden JD. Presentation and outcome of clinical poor performance in one health district over a 5-year period: 2002–2007. The British Journal of General Practice. 2009;59(562):344-8.
24. Intelligent Monitoring: NHS GP Practices - Indicators and methodology. Newcastle, United Kingdom: Care Quality Commission, 2014 December.
25. Slootweg I, Busch O, Lombarts KM. Zorgprofessionals opleiden voor veilige bespreekcultuur. Tijdschrift over Kwaliteit en Veiligheid in Zorg (KIZ). 2016.
26. Verhoef LM, Van de Belt TH, Engelen LJ, Schoonhoven L, Kool RB. Social media and rating sites as tools to understanding quality of care: a scoping review. Journal of medical Internet research. 2014;16(2):e56.
27. Kool RB, Kleefstra SM, Borghans I, Atsma F, van de Belt TH. Influence of Intensified Supervision by Health Care Inspectorates on Online Patient Ratings of Hospitals: A Multilevel Study of More Than 43,000 Online Ratings. Journal of medical Internet research. 2016;18(7):e198.
28. Palmer KT, Brown I, Hobson J. Fitness for Work: The Medical Aspects. Fifth revised edition. Oxford, United Kingdom: Oxford University Press; 2013.
29. Finucane PM, Bourgeois-Law GA, Ineson SL, Kaigas TM. A comparison of performance assessment programs for medical practitioners in Canada, Australia, New Zealand, and the United kingdom. Acad Med. 2003 Aug;78(8):837-43.
30. Harrison J. Doctors' health and fitness to practise: assessment models. Occupational medicine (Oxford, England). 2008;58(5):318-22.
31. Rosenthal MM. The incompetent doctor: behind closed doors. Buckingham: Open University Press; 1995.
32. Grant D, Alfred KC. Sanctions and recidivism: an evaluation of physician discipline by state medical boards. Journal of health politics, policy and law. 2007;32(5):867-85.
33. Holden JD, Cox SJ, Hargreaves S. Avoiding isolation and gaining insight. BMJ Careers. 2012.
34. Brown N, McAvoy P, Joffe M. Defining insight: a challenge that matters. The clinical teacher. 2014;11(3):170-3.
35. Overeem K, Lombarts MJ, Arah OA, Klazinga NS, Grol RP, Wollersheim HC. Three methods of multi-source feedback compared: a plea for narrative comments and coworkers' perspectives. Medical teacher. 2010;32(2):141-7.
36. Nurudeen SM, Kwakye G, Berry WR, Chaikof EL, Lillemoe KD, Millham F, et al. Can 360-Degree Reviews Help Surgeons? Evaluation of Multisource Feedback for Surgeons in a Multi-Institutional Quality Improvement Project. Journal of the American College of Surgeons. 2015;221(4):837-44.
37. Herregistratie. Utrecht: Koninklijke Nederlandsche Maatschappij tot bevordering der Geneeskunst; 2016 [cited 2017 October 18]. Available from: https://www.knmg.nl/opleiding-herregistratie-carriere/herregistratie/hoe-werkt-het.htm.
38. Filipe HP, Silva ED, Stulting AA, Golnik KC. Continuing professional development: best practices. Middle East African journal of ophthalmology. 2014;21(2):134-41.
39. Smith PC, Anell A, Busse R, Crivelli L, Healy J, Lindahl AK, et al. Leadership and governance in seven developed health systems. Health policy (Amsterdam, Netherlands). 2012;106(1):37-49.
40. Hoek H. Governance & Gezondheidszorg: Private, publieke en professionele invloeden op zorgaanbieders in Nederland. Rotterdam: Erasmus University; 2007.

41. Schafer W, Kroneman M, Boerma W, van den Berg M, Westert G, Deville W, et al. The Netherlands: health system review. Health systems in transition. 2010;12(1):v-xxvii, 1-228.
42. Hollnagel E. Safety-I and safety-II: the past and future of safety management. Farnham, Surrey, United Kingdom: Ashgate Publishing Company; 2014. 187 p.
43. Kohn LT, Corrigan J, Donaldson MS. To err is human: building a safer health system. Washington, D.C.: National Academy Press; 2000. xxi, 287 p.
44. Carayon P, Wood KE. Patient safety - the role of human factors and systems engineering. Studies in health technology and informatics. 2010;153:23-46.
45. Karsh BT, Holden RJ, Alper SJ, Or CK. A human factors engineering paradigm for patient safety: designing to support the performance of the healthcare professional. Quality & safety in health care. 2006;15 Suppl 1:i59-65.
46. Staat van de Gezondheidszorg 2013. Op weg naar aantoonbaar verantwoord functionerende beroepsbeoefenaren in de zorg. Utrecht: Inspectie voor de Gezondheidszorg; 2013.
47. Sheldon T. Case of "dysfunctional" Dutch doctor exposes "culture of silence surrounding mistakes". BMJ. 2009;339.

Chapter 2

Am I My Brother's Keeper?

A survey of 10 healthcare professions in the Netherlands about experiences with impaired and incompetent colleagues

As published in BMJ Quality & Safety

Weenink JW, Westert GP, Schoonhoven L, Wollersheim H, Kool RB. Am I my brother's keeper? A survey of 10 healthcare professions in the Netherlands about experiences with impaired and incompetent colleagues. BMJ Qual Saf. 2015 Jan;24(1):56-64.

ABSTRACT

Background Dealing with poor individual performance of healthcare professionals is essential in patient safety management. The objective of the current study was to explore potential differences regarding experiences with impaired and incompetent colleagues between a broad range of healthcare professions.

Methods A survey of 10 legally regulated professions in the Netherlands on knowledge on dealing with impaired/incompetent colleagues, experiences with such colleagues, action taken upon an impaired and incompetent colleague and reasons for not taking action.

Results We approached 4348 professionals, of whom 1238 responded (28.5%). One-third of the respondents (31.3%) had an experience with an impaired or incompetent colleague in the preceding 12 months, and 84% of these reported cases concerned incompetence. Even under the extreme assumption that all non-respondents had no such experiences, our results indicate that at least 9% of the total sample had dealt with an impaired or incompetent colleague in the previous 12 months. Two-thirds of the professionals (68.6%) who had an experience reported having acted upon it. Respondents significantly less often reported to have acted (49.6% vs 79.1%, p=0.000) when the colleague was working at a different organisation. The primary reason for not taking action was that impairment/incompetence could not be proven.

Conclusions Even using an extreme correction for our low response rate, at least 9% of healthcare professionals reported dealing with impaired or incompetent colleagues in the past year. Creating and clarifying reporting opportunities when confronted with an incompetent or impaired colleague should be a priority for professional organisations, policymakers and regulatory bodies.

BACKGROUND

Poor individual performance of healthcare professionals can have serious implications for patient safety.[1] From the many underlying causes, distinction is made between impairment and incompetence.[2] Impairment includes substance abuse, mental or physical illness and disruptive behaviour;[3] incompetence concerns a deficiency in knowledge or skills and may include interpersonal skills such as communication and collaboration problems.[4,5] These conditions frequently overlap.[1,6] While it is hard to accurately determine the prevalence of poor performance among professionals, several studies have estimated the prevalence of single causes of such performance, such as substance abuse,[7,8] disruptive behaviour[9] and mental illness.[10] Considering all forms of poor individual performance, it has been estimated that at least one-third of all physicians will be confronted with a period in their career during which they have a condition that impairs their ability to practice medicine safely.[1]

Dealing with impaired and incompetent healthcare professionals is essential in patient safety management. Giving critical feedback and daring to discuss risks for patient safety is increasingly considered a crucial and necessary step in improving safety culture.[11] Assessing the willingness of healthcare professionals to discuss poor performance is, therefore, important. Moreover, healthcare professionals have an ethical, and in some countries legal, responsibility to address performance problems of other healthcare professionals.[4,12] Recent studies showed that 64%–77% of physicians are willing to report impaired or incompetent colleagues to relevant authorities.[2,13] When faced with such colleagues in real life, however, 33%–45% of physicians did not report them, which raises questions about the ability of medicine to self-regulate.[2,14]

Previous studies of individual performance problems mainly focused on physicians.[11,15,16] However, delivering high-quality care often requires cooperation between different healthcare professions.[17] To the best of our knowledge, no research has been done to identify experiences with and willingness to report incompetent and impaired colleagues from other healthcare professions. In this explorative study, we present the results of a large national survey focusing on potential differences between 10 professions regarding experiences with impaired and incompetent colleagues. We also examine if, and how, professionals acted upon such experiences. With this study we aim to provide further insight in the ability of healthcare professions to self-regulate. It may also serve as valuable input for patient safety policy aimed at timely action with regards to impaired and incompetent professionals.

METHODS

Study design

We developed a questionnaire based on existing literature[2,14] and adjusted a first draft following feedback of expert colleagues and involved professional associations. A second draft questionnaire was pilot-tested by two healthcare professionals from each included profession (n=18) in order to determine that questions were clear, whether any important topics were missing and to ensure face validity. These professionals were recruited from our own professional network. We included a definition of impairment/incompetence on the title page of the questionnaire, which incorporated four key aspects as follows: impairment/incompetence concerns a (1) structural situation, (2) of irresponsible healthcare delivery, (3) which is (potentially) hazardous to the patient and (4) in which the specific healthcare professional is not able or willing to recover by himself or herself.[18] A comment was included that this could involve substance abuse or disruptive behaviour.

The finalised questionnaire recorded respondents' general characteristics and queried their knowledge of and confidence in dealing with impaired/incompetent colleagues from both the same and different healthcare professions, who work at the same or at a different organisation. Answers were given on a five-point Likert scale ranging from 'totally disagree' to 'totally agree'. We defined respondents who answered 'agree' or 'totally agree' as having knowledge and confidence in concordance with the question. The questionnaire also asked about experiences with an impaired or incompetent colleague in the preceding 12 months. A 'colleague' was defined as being a professional from one of the professions included in our study, who worked either at the same practice as the respondent or at another one. If respondents had experienced an impaired/incompetent colleague, we asked about the profession of this colleague, the cause(s) of impairment/incompetence and the reaction of the respondent to this experience. If respondents had experienced more than one impaired or incompetent colleague in the past 12 months, we asked about the most recent case. A second part of the questionnaire focused on the instruments and tools available and required in order that professionals are able to adequately deal with impaired and incompetent colleagues; on methods used by healthcare professionals to assess their own competence and on the responsibilities of different stakeholders in dealing with impaired and incompetent professionals. This part of the questionnaire further included three hypothetical case scenarios. The results of this second part are not included in this study.

Questionnaires were sent by email along with a joint introduction from the specific professional association and our research institute. A reminder to complete the questionnaire was sent after two and a half weeks.

Study population

Our study population included dentists, midwives, nurses, pharmacists, physicians, physiotherapists, psychologists and psychotherapists. These are the legally regulated professions in the Netherlands. 'Physicians' was further segregated into 'general practitioners' (GPs), 'medical specialists' and 'elderly care physicians' due to their different roles in Dutch healthcare—namely primary care, secondary healthcare and long-term care. Professionals were randomly selected from the member data of each professional association. For medical specialists, we used a representative random sample based on the number of professionals of each specialty in the Netherlands. No exclusion criteria were used. Respondents were, however, only included in our analysis if they indicated at the start of the questionnaire that they were currently working in patient care.

Our aim at the outset of the study was to approach 400 professionals from each included profession with the assistance of each specific professional association. In consultation with and at the request of the professional associations, we invited 800 GPs and psychotherapists, 448 dentists and 300 midwives. For nurses it was not possible to draw a random sample from the member data of the professional association. Instead, a publicly accessible questionnaire was issued through the association's newsletter.

Setting

This study focuses on dealing with impaired and incompetent professionals in the Netherlands. Self-regulation, particularly of the medical profession, is an important aspect of the Dutch system.[19] Healthcare professionals are assumed to act upon circumstances (including concerns about an individual provider) that may threaten patient safety, following professional standards, legal regulation or prescribed ethical codes.[18,20] Furthermore, healthcare providers are responsible for the performance of individual professionals within their organisation.[21] The Health Care Inspectorate has set minimum standards that act as an accountability mechanism in the form of accreditation.[19] The Health Care Inspectorate may itself look into concerns regarding individual healthcare professionals at its own instigation. Professional associations can look into a concern when the healthcare provider of concern is a member, a case may be filed to one of the independent judicial courts and the public prosecution service may start an investigation when it concerns a criminal matter.[22–24]

Data analysis

We used univariate and bivariate analyses to examine differences between professions on three aspects:

- knowledge on how to deal with impaired/incompetent colleagues
- experiences with such colleagues in the past 12 months
- the respondent's reactions upon those experiences.

We looked specifically into experiences involving a colleague from the same profession as the respondent as opposed to those of another profession in order to explore to what extent interprofessional issues could be affecting reactions to impairment/incompetence. We also explored whether there were differences in action taken towards impaired/incompetent professionals within or outside the own organisation. Since previous papers focused on formal actions in dealing with impaired and incompetent colleagues, we also explored differences between the situations where the respondent took informal as opposed to formal action. Formal action was defined as reporting the experience to the board of the organisation, the medical association, the Health Care Inspectorate, one of the independent judicial courts or to the public prosecution service. We compared the experiences of those respondents who only took informal action with those who undertook formal action (including situations where the respondent took both formal and informal action).

We used SPSS V.20.0 for all analyses.

RESULTS

We approached 4348 professionals, of whom 1238 responded (28.5%). Response rate by healthcare profession varied from 17.0% (pharmacists) to 45.5% (elderly care physicians). At the start of the questionnaire, 80 professionals indicated that they were currently not practising as a healthcare professional and were, therefore, ineligible. Furthermore, 119 nurses responded to the questionnaire in the newsletter, giving a total of 1277 professionals included in the study results.

Characteristics of our study population are listed in table 1. Almost 63% of respondents were women; the average age was 49 years (SD 11.3) and the average number of years in practice was 18 years (SD 10.1). More than half of the respondents worked in an independent practice (57%), and a majority worked with colleagues of the same profession (80%). About 40% of respondents were professionals on the payroll of an organisation as opposed to self-employed professionals.

Knowledge of dealing with impaired and incompetent colleagues

Almost three-quarters of the respondents (72.0%) indicated they agreed or totally agreed that they knew how to deal with impaired and incompetent colleagues of the same profession working at their own organisation (table 2). Half of the respondents (51.3%) knew how to deal with impaired/incompetent colleagues of a different profession working at the same organisation, while less than one-third (30.2%) knew how to deal with impaired/incompetent colleagues of the same profession working at a different organisation and less than a quarter of the respondents (23.4%) indicated that they knew how to deal with colleagues of another profession working at a different organisation.

Table 1. Characteristics of respondents

	Study population	
	N	%
Gender (n=1271)		
Male	475	37.4
Female	796	62.6
Age (years) (n=1270)		
≤30	81	6.4
30–39	219	17.2
40–49	295	23.2
50–59	469	36.9
≥60	206	16.2
Profession (n=1277)		
Dentist	98	7.7
Elderly care physician	152	11.9
General practitioner	236	18.5
Midwife	119	9.3
Medical specialist	99	7.8
Nurses	119	9.3
Pharmacist	68	5.3
Physiotherapist	100	7.8
Psychologist	98	7.7
Psychotherapist	188	14.7
Years in practice (n=1252)		
<10	301	24.0
10–19	396	31.6
20–29	352	28.1
≥30	203	16.2
Type of organisation (n=1232)		
Hospital	170	13.8
Mental healthcare organisation	46	3.7
Nursing home	172	14.0
Community health centre	93	7.5
Independent practice	703	57.1
Other	48	3.9
Colleagues of same profession (n=1270)		
No	249	19.6
W/ colleague(s) of same profession	1021	80.4
Salaried instead of self-employed (n=1270)		
No	766	60.3
Yes	504	39.7

Table 2. Knowledge and confidence to deal with impaired/incompetent colleagues*

	Of *same* profession at *same* organisation†		Of *same* profession at *different* organisation		Of *another* profession at *same* organisation		Of *another* profession at *different* organisation	
	N	%	N	%	N	%	N	%
Total	706/980	72.0	337/1115	30.2	520/1067	51.3	263/1125	23.4
Gender								
Male	294	80.5	155	37.0	229	57.1	111	26.2
Female	412	67.0	182	26.1	318	47.7	152	21.7
Age (years)								
≤30	49	70.0	14	19.7	27	38.0	12	16.7
30–39	118	65.6	41	21.4	79	42.0	32	16.7
40–49	175	70.6	65	24.4	134	50.6	56	20.9
50–59	257	73.6	133	33.2	204	53.5	95	23.5
≥60	107	80.5	84	45.4	103	63.6	68	36.0
Profession								
Dentist	49	71.0	24	29.6	37	49.3	18	22.0
Elderly care physician	92	66.7	20	14.3	81	57.9	14	10.0
General practitioner	143	71.5	79	37.4	111	52.4	48	22.5
Midwife	71	65.1	31	27.7	48	43.6	28	24.8
Medical specialist	61	71.8	28	32.6	44	51.2	18	20.5
Nurses	64	81.0	23	29.9	44	55.0	26	33.8
Pharmacist	35	87.5	14	26.4	17	34.0	10	18.2
Physiotherapist	58	64.4	18	18.9	33	35.5	15	15.8
Psychologist	49	80.3	32	36.8	43	55.1	27	30.0
Psychotherapist	84	77.1	68	39.3	89	62.2	59	34.3
Years in practice								
<10	169	66.8	64	24.5	112	43.8	44	16.8
10–19	232	74.1	103	28.8	181	53.2	86	24.0
20–29	184	71.0	106	35.0	149	50.9	77	25.0
≥30	110	78.6	59	33.5	94	58.4	50	27.9
Type of organisation								
Hospital	100	68.5	38	26.2	72	48.6	31	21.1
Mental healthcare org.	33	82.5	10	22.7	31	70.5	11	25.0
Nursing home	105	70.9	27	17.9	89	59.7	20	13.3
Community health centre	59	75.6	27	32.9	40	47.1	19	22.6
Independent practice	361	71.3	216	34.5	281	49.0	165	26.1
Other	27	77.1	9	22.5	20	50.0	8	20.0
Working with colleagues of same profession								
No	49	62.0	83	39.5	77	46.7	70	32.0
Yes	657	72.9	254	28.1	470	52.1	193	21.3
Salaried instead of self-employed								
No	412	73.2	238	34.9	314	49.8	174	25.3
Yes	294	70.5	99	22.9	233	53.4	89	20.4

*Percentages are based on valid cases and are unadjusted.

†A comment was included that if the respondent was not working with professionals of the same profession, this could be left blank.

Experiences with an impaired or incompetent colleague

Almost one-third of the respondents (31.3%) had an experience with an impaired or incompetent colleague in the preceding 12 months (table 3). Overall, 66.4% of the reported cases concerned incompetence, 13.2% impairment and the remaining 20.4% a combination of both. In a majority of the reported cases, it concerned two or more causes of impairment/incompetence (57.2%). The specific underlying causes are listed in table 4, with substandard care mentioned most often (57.2%).

Description of action taken

Two-thirds of respondents (68.6%) indicated that they acted upon the experience. Elderly care physicians (84.1%), nurses (83.3%) and medical specialists (82.9%) most often reported to have taken action, and dentists (42.9%) and physiotherapists (47.4%) least often reported to have taken action. Actions mainly concerned 'talking to the impaired/incompetent colleague' (71.4%) and 'discussing the experience with colleagues' (58.3%). A small percentage reported the colleague to the board of the organisation (11.7%), the professional association (3.0%) or the Health Care Inspectorate (6.0%). In total, 213 respondents reported to have taken informal action (82.7%), while 8 took formal action (3.0%) and 38 took both informal and formal action (14.3%). No significant differences in causes of impairment or incompetence were observed between respondents who took formal action and those who only took informal action. Respondents who undertook formal action more often reported to have knowledge on how to deal with impaired/incompetent colleagues of the same profession within their organisation (94.9% vs 76.7%, p=0.010) and colleagues of another profession outside their own organisation (50.0% vs 29.1%, p=0.011). Furthermore, respondents who took formal action more often reported that there was a risk for patient safety (60.9% vs 39.2%, p=0.007).

Results of action taken

Actions taken resulted in the colleague 'being talked to about the impairment/incompetence' in more than half of the cases (58.6%), 'starting an improvement trajectory' in 29.3%, and in the colleague leaving the current employment in about a quarter of instances (24.1%). Hardly any action led to a complaint to the disciplinary court (1.9%) or to the start of a criminal investigation (0.8%). About a tenth of the respondents (12.4%) reported that their actions had led to nothing.

Reasons for not taking action

The main reason for not taking action was that impairment/incompetence could not be proven (38.5%). Other reasons included that others had already taken action (25.4%), due to possible consequences for the team climate (23.0%), because it was unknown what actions to take (20.5%) and because it was considered to be the responsibility of others (17.2%).

Table 3. Experiences with an impaired or incompetent colleague*

	Experience with impaired/ incompetent colleague		Acted upon experience of impaired/incompetent colleague	
	N	%	N	%
Total	390/1248	31.3	266/388	68.6
Gender				
Male	140	29.7	101	72.7
Female	250	32.2	165	66.3
Age (years)				
≤30	36	46.2	20	55.6
30–39	66	31.1	43	65.2
40–49	92	31.3	65	71.4
50–59	143	31.2	105	73.4
≥60	53	26.0	33	63.5
Profession				
Dentist	28	29.2	12	42.9
Elderly care physician	45	30.0	37	84.1
General practitioner	74	31.6	46	62.2
Midwife	37	31.4	22	59.5
Medical specialist	36	37.1	29	82.9
Nurses	78	73.6	65	83.3
Pharmacist	13	19.4	9	69.2
Physiotherapist	19	19.4	9	47.4
Psychologist	20	20.6	13	65.0
Psychotherapist	40	21.6	24	60.0
Years in practice				
<10	98	33.4	60	61.9
10–19	110	28.3	75	68.2
20–29	104	29.9	73	70.9
≥30	71	35.7	53	74.6
Practice organisation				
Hospital	81	49.1	64	80.0
Mental healthcare organisation	16	34.8	12	75.0
Nursing home	59	34.9	50	86.2
Community health centre	31	33.3	19	61.3
Independent practice	159	22.8	88	55.3
Other	21	46.7	15	71.4
Colleagues of same profession				
No	46	18.7	26	56.5
W/colleague(s) of same profession	344	34.3	240	70.2
Salaried instead of self-employed				
No	201	26.5	118	59.0
Yes	189	38.6	148	78.7

*Percentages are based on valid cases and are unadjusted.

Table 4. Characteristics of the impaired/incompetent colleague*

	Characteristics impaired or incompetent colleague		Acted upon experience of impaired/ incompetent colleague	
	N	**%**	**N**	**%**
Total	390		266/388	68.6
Professional				
Of same profession	255	77.5	174	68.2
Of another profession	74	22.5	45	60.8
Organisation				
In my practice or organisation	230	64.6	182	79.1
Outside my organisation	126	35.4	62	49.6
Patient safety at risk				
No/I don't know	251	65.0	154	61.4
Yes	135	35.0	111	82.2
Cause of incompetence†	*328*	*84.1*	*222*	*67.7*
Substandard care	223	57.2	149	66.8
Collaboration problems with colleagues	156	40.0	114	73.1
Communication problems with colleagues	159	40.8	122	76.7
Communication problems with patients	120	30.8	89	74.2
Cause of impairment†	*127*	*32.6*	*95*	*74.8*
Substance abuse (eg, drugs or alcohol)	33	8.5	22	66.7
Disruptive behaviour	56	14.4	39	69.6
Physical impairment	18	4.6	15	83.3
Mental illness	39	10.0	35	89.7

*Percentages are based on valid cases and are unadjusted.
†Multiple causes could be checked, impairment and incompetence may overlap.

Interprofessional experiences

Of respondents who specified the profession of the impaired/incompetent colleague (n=329), three-quarters indicated that the colleague was of the same profession (77.5%). For colleagues of another profession, mental illness as a cause was less often reported (2.7% vs 12.5%, p=0.014). No significant differences were observed between the groups regarding acting upon the experience. When acting upon the experience, it was less often discussed with the colleague himself when it concerned a colleague of another profession (51.1% vs 75.3%, p=0.002).

Interorganisational experiences

Of respondents who specified whether the impaired/incompetent colleague worked at the same or at a different organisation (n=356), almost two-thirds indicated that the

colleague was from the same organisation (64.6%). For colleagues from another organisation, experiences less often concerned collaboration problems (30.2% vs 46.5%, p=0.003) or communication problems (33.3% vs 47.4%, p=0.010) with colleagues. Respondents who experienced an impaired/incompetent colleague from another organisation less often reported to have acted upon the experience (49.6% vs 79.1%, p=0.000). Of those who acted upon it, it was more usually discussed with colleagues not directly working with (16.1% vs 5.5%, p=0.009) or reported to the Health Care Inspectorate (12.9% vs 2.2%, p=0.001). Less often it was discussed with colleagues directly working with (41.9% vs 64.8%, p=0.002), the supervisor (11.3% vs 52.2%, p=0.000) or the medical staff (1.6% vs 12.6%, p=0.012).

DISCUSSION

Almost three-quarters (72%) of healthcare professionals report to have knowledge on how to handle situations regarding an impaired or incompetent colleague of the same profession within their own organisation, whereas 51% of professionals report so when it concerns a professional from a different profession. Professionals even less often reported to have knowledge on how to handle the situation when it concerns a colleague outside their own organisation, with 30% of professionals reporting to have this knowledge for colleagues of the same profession and 23% for colleagues of another profession. Almost one-third of the healthcare professionals indicated that they actually had an experience with an impaired or incompetent colleague in the preceding year, and of those two-third reported to have taken action.

Today, providing good quality healthcare often demands collaboration between professionals across organisations.[25] This seems to be confirmed by our finding that more than one-third of reported experiences concerned a colleague working at a different practice or organisation. Professionals report to have limited knowledge on how to deal with such colleagues. They less often report to have acted upon an experience of incompetence or impairment in relation to a colleague working at a different organisation. No notable differences in reasons for not taking action were observed between professionals who experienced an impaired/incompetent colleague at their own organisation and professionals who experienced such a colleague outside their own organisation. This indicates that attention should be paid to dealing with impaired and incompetent professionals working at a different organisation. About a quarter of the experiences concerned a colleague of another profession, though our results suggest that dealing with interprofessional experiences is not very different from dealing with colleagues from the same profession.

For all professions, a substantial amount of professionals reported to have experienced an impaired/incompetent colleague in the past 12 months. Previous studies have

recorded percentages slightly lower than 20 for a 3-year period, but these studies only considered colleagues working at the same practice or organisation.[2,16] It is important to realise that this figure does not in itself demonstrate the prevalence of impairment or incompetence among healthcare professionals. It does, however, highlight that dealing with impairment and incompetence is an issue for all Dutch healthcare professions, not just for physicians. Nurses reported more than twice having this experience. We did observe differences between professions regarding knowledge on how to deal with impaired/incompetent colleagues and in acting upon such a colleague. Pharmacists were most likely to report that they knew how to deal with impaired/incompetent colleagues of the same profession at their organisation, and psychotherapists most often reported to know how to deal with colleagues at a different organisation. Medical specialists were among the most likely to act upon an impaired or incompetent colleague, which could be caused by the explicit protocol of the professional association on how to deal with impaired and incompetent professionals.[26] We did not, however, observe a difference in their reported knowledge on how to deal with impairment or incompetence. Neither did we observe that GPs were more likely to report, though their association has a protocol on how to deal with impaired/incompetent colleagues as well,[27] while for elderly care physicians and nurses there is no protocol available and they did often report to have acted. Further research is needed to determine whether the availability of profession-specific guidelines and protocols is associated with being prepared and taking action.

Figures on acting upon the impaired colleague are similar to previous studies (about two-third), though these studies focused on reporting to relevant authorities.[2,14,16] Our definition of taking action was broader. Respondents in this study indicated that taking action mainly concerned addressing the impaired colleague or discussing the experience with colleagues. One-fifth took formal action and reported the colleague to relevant authorities such as the board of the organisation, the relevant professional association or the Health Care Inspectorate. In our opinion, it is hard to judge whether this percentage is high or low because it depends on the specific situation. Respondents who thought patient safety was at risk and reported to know how to deal with the situation more often reported to have taken formal action.

About one-third of the professionals who experienced an impaired or incompetent colleague reported not to have acted upon it at all. One quarter of the professionals with such an experience did not act upon it because action was already taken by others. Professionals reported that the main reason for not acting upon the experience was that the impairment or incompetence could not be proven. Furthermore, our results show that many healthcare professionals do not know how to deal with impaired/incompetent colleagues outside their organisation and less often report to act upon such an experience. This is especially alarming because continuity of care crossing the boundaries of organisations and professionals is crucial in an era of specialisation, where patients

encounter many specialists in different settings.[25] The number of professionals that did not act upon an impaired or incompetent colleague could be considerably lowered by information about how to report.

Previous research on single causes of poor performance mainly focused on impairment. There are no overall estimates of the prevalence of incompetence.[1] In our study, 84% of the reported cases concerned incompetence, of which often multiple causes overlapped. Furthermore, the primary reason reported for not taking action was that impairment/incompetence could not be proven. This demands objective measures to assess incompetence and impairment, and emphasises the importance of steering on performance, which can be achieved by periodic evaluation of competence and performance. The policy of several Dutch professional associations and the Dutch Health Care Inspectorate seems to be in accordance with these findings as they emphasise steering on performance.[26,28] Several methods exist that have been validated in evaluating competence.[29] These may be appropriate for assessing incompetence, though other tools or methods may be required for this sole purpose.

About one-third of the respondents who had an experience reported that patient safety was at risk. The used definition of impairment and incompetence, however, assumes that there is a potential hazard for the patient.[18] Our observed percentage for experiences with impaired/incompetent colleagues could therefore be an overestimation. Nonetheless, we think it would be appropriate if professionals would always act upon a colleague that they suspect of being impaired or incompetent, independently of their estimation of patient safety being explicitly at risk.

This study has several limitations, the most obvious being the low response rate of 28%. However, even using an extremely conservative assumption that none of the non-respondents would have reported any experiences with impaired or incompetent colleagues, our results imply that at least 9% of health professionals in the Netherlands have experience with an incompetent or impaired colleague within the past year. A second limitation is social desirability. Respondents may have overstated the degree to which they acted on their concerns. Lastly, we included medical specialists as one group, possibly missing the opportunity to elicit different experiences and behaviours across specialties. Previous research in the USA found differences between medical specialties regarding personal knowledge of impaired/incompetent colleagues.[2]

Despite the limitations, this study provides further needed insight in the ability of healthcare professions to self-regulate. We found that one in three professionals had an experience with an impaired or incompetent colleague in the preceding 12 months. Even under the extreme assumption that none of the non-respondents had such an experience, our results would still suggest that a substantial number of professionals would have knowledge of an impaired or incompetent colleague in any given year. Our study shows that dealing with impaired and incompetent colleagues is a serious issue

in a broad range of healthcare professions. This should provide a compelling reason for the urgent attention of professional organisations, policymakers and regulatory bodies in order to create and clarify reporting opportunities when confronted with an incompetent or impaired colleague.

REFERENCES

1. Leape LL, Fromson JA. Problem doctors: is there a system-level solution? Ann Intern Med 2006;144:107–15.
2. DesRoches CM, Rao SR, Fromson JA, et al. Physicians' perceptions, preparedness for reporting, and experiences related to impaired and incompetent colleagues. JAMA 2010;304:187–93.
3. The sick physician. Impairment by psychiatric disorders, including alcoholism and drug dependence. JAMA 1973;223:684–7.
4. Report of the AMA Council on Ethical and Judicial Affairs: reporting impaired, incompetent, or unethical colleagues. J Miss State Med Assoc 1992;33:176–7.
5. Epstein RM, Hundert EM. Defining and assessing professional competence. JAMA 2002;287:226–35.
6. Donaldson LJ. Doctors with problems in an NHS workforce. BMJ 1994;308:1277–82.
7. Brewster JM. Prevalence of alcohol and other drug problems among physicians. JAMA 1986;255:1913–20.
8. McCall SV. Chemically dependent health professionals. West J Med 2001;174:50–4.
9. Rosenstein AH, O'Daniel M. Disruptive behavior and clinical outcomes: perceptions of nurses and physicians. Am J Nurs 2005;105:54–64;
10. Tyssen R, Vaglum P. Mental health problems among young doctors: an updated review of prospective studies. Harv Rev Psychiatry 2002;10:154–65.
11. Benn J, Koutantji M, Wallace L, et al. Feedback from incident reporting: information and action to improve patient safety. Qual Saf Health Care 2009;18:11–21.
12. Raising and acting on concerns about patient safety. Manchester: General Medical Council, 2012. http://www.gmcuk.org/static/documents/content/Raising_and_acting_on_concerns_about_patient_safety_-_English_0914.pdf
13. Farber NJ, Gilibert SG, Aboff BM, et al. Physicians' willingness to report impaired colleagues. Soc Sci Med 2005;61:1772–5.
14. Campbell EG, Regan S, Gruen RL, et al. Professionalism in medicine: results of a national survey of physicians. Ann Intern Med 2007;147:795–802.
15. Donaldson LJ, Panesar SS, McAvoy PA, et al. Identification of poor performance in a national medical workforce over 11 years: an observational study. BMJ Qual Saf 2014;23:147–52.
16. Roland M, Rao SR, Sibbald B, et al. Professional values and reported behaviours of doctors in the USA and UK: quantitative survey. BMJ Qual Saf 2011;20:515–21.
17. D'Amour D, Ferrada-Videla M, San Martin Rodriguez L, et al. The conceptual basis for interprofessional collaboration: core concepts and theoretical frameworks. J Interprof Care 2005;19 (Suppl 1):116–31.
18. KNMG, KNMG Kwaliteitskader medische zorg. Utrecht: Koninklijke Nederlandsche Maatschappij tot bevordering der Geneeskunst; 2012.
19. Smith PC, Anell A, Busse R, et al. Leadership and governance in seven developed health systems. Health Policy 2012;106:37–49.
20. (NIP), Beroepscode voor psychologen. Utrecht: Nederlands Instituut van Psychologen;2012.
21. Kwaliteitswet Zorginstellingen. Den Haag: Ministerie van Volksgezondheid, Welzijn & Sport; 1996.
22. Wet op de beroepen in de individuele gezondheidszorg. Ministerie van Volksgezondheid, Welzijn & Sport; 1993.
23. Tuchrechtbesluit BIG. Den Haag:Ministerie van Volksgezondheid, Welzijn & Sport; 2009.

24. IGZ-handhavingskader, Richtlijn voor transparante handhaving. Utrecht: Inspectie voor de Gezondheidszorg;2008.
25. D'Amour D, Goulet L, Labadie JF, et al. A model and typology of collaboration between professionals in healthcare organizations. BMC Health Serv Res 2008;8:188.
26. OMS, Model reglement mogelijk disfunctionerend medisch specialist. Utrecht: Orde van Medisch Specialisten; 2008.
27. LHV, Vermeend disfunctioneren huisarts. Een protocol met handvatten voor het oplossen en bespreekbaar maken van vermeend disfunctioneren. Utrecht: Landelijke Huisartsen Vereniging; 2012.
28. Staat van de Gezondheidszorg 2013. Op weg naar aantoonbaar verantwoord functionerende beroepsbeoefenaren in de zorg. Utrecht: Inspectie voor de Gezondheidszorg; 2013.
29. Overeem K, Faber MJ, Arah OA, et al. Doctor performance assessment in daily practise: does it help doctors or not? A systematic review. Med Educ 2007;41:1039–49.

Chapter 3

The Disciplined Healthcare Professional

A qualitative interview study on the impact of the disciplinary process and imposed measures in the Netherlands

As published in BMJ Open

Verhoef LM, Weenink JW, Winters S, Robben PB, Westert GP, Kool RB. The disciplined healthcare professional: a qualitative interview study on the impact of the disciplinary process and imposed measures in the Netherlands. BMJ Open. 2015 Nov 25;5(11):e009275.

ABSTRACT

Objective It is known that doctors who receive complaints may have feelings of anger, guilt, shame and depression, both in the short and in the long term. This might lead to functional impairment. Less is known about the impact of the disciplinary process and imposed measures. Previous studies of disciplinary proceedings have mainly focused on identifying characteristics of disciplined doctors and on sentencing policies. Therefore, the aim of this study is to explore what impact the disciplinary process and imposed measures have on healthcare professionals.

Design Semi-structured interview study, with purposive sampling and inductive qualitative content analysis.

Participants 16 healthcare professionals (9 medical specialists, 3 general practitioners, 2 physiotherapists and 2 psychologists) that were sanctioned by the disciplinary tribunal.

Setting The Netherlands.

Results Professionals described feelings of misery and insecurity both during the process as in its aftermath. Furthermore, they reported to fear receiving new complaints and provide care more cautiously after the imposed measure. Factors that may enhance psychological and professional impact are the publication of measures online and in newspapers, media coverage, the feeling of treated as guilty before any verdict has been reached, and the long duration of the process.

Conclusions This study shows that the disciplinary process and imposed measures can have a profound psychological and professional impact on healthcare professionals. Although a disciplinary measure is meant to have a corrective effect, our results suggest that the impact that is experienced by professionals might hamper optimal rehabilitation afterwards. Therefore, organising emotional support should be considered during the disciplinary process and in the period after the verdict.

BACKGROUND

In the past decades, patient safety has gained considerable attention and the importance of addressing medical incidents has been increasingly recognised.[1,2] Incidents often relate to system-level or organisational aspects of healthcare.[3] Some are, however, attributable to individual healthcare professionals.[4] In these cases, disciplinary proceedings may be initiated to address the healthcare professional. Countries differ in their system of disciplinary proceedings. In the Netherlands, disciplinary law is embedded in the Healthcare Professionals Act and applies to eight regulated healthcare professions: dentists, midwives, nurses, pharmacists, physicians, physiotherapists, psychologists and psychotherapists.[5] The goal of disciplinary law is first corrective to repress incompetent and careless behaviour of healthcare professionals and second normative to clarify the professional standard. It should improve the quality of healthcare and enhance public trust in the medical profession.[6,7] In Dutch disciplinary law, patients do not receive financial compensation if the healthcare professional is found to be at fault, such as is the case in a malpractice system.[8]

To achieve its goals, the Dutch disciplinary tribunal can impose a number of measures. Healthcare professionals can be disciplined with a warning, a reprimand, a monetary fine, a (conditional) suspension, deprivation of the right to perform certain procedures or of the right to re-registration (in case a professional voluntarily unregisters), or removal from the register.[5] For the latter, the professional loses the right to carry out the profession. For all other measures, however, the professional is expected to proceed with or return to (a subset of) his or her activities.

It is known that doctors who receive complaints may have feelings of anger, guilt, shame and depression, both in the short and in the long term.[9,10] In case of medical errors, healthcare professionals are often impacted as 'second victims', experiencing similar feelings as patients and family.[11] This may lead to functional impairment.[11,12] Less is known about the impact of the disciplinary process and imposed measures. Previous studies of disciplinary proceedings have mainly focused on identifying characteristics of disciplined professionals and on sentencing policies.[13–16] A recent report on suicides of doctors while under investigation of the General Medical Council (GMC) suggested that the impact of investigation on individual doctors and how sanctions affect a doctor's career should be audited.[17,18] The aim of this study was to examine what impact the disciplinary process and imposed disciplinary measures can have on healthcare professionals.

METHODS

To answer our research question, we have chosen to perform semi-structured interviews since this is an appropriate method to explore people's experiences and attitudes.[19] We

chose to use individual interviews because of the sensitivity of the topic and because of the diversity of cases. A semi-structured interview guide was used to explore predefined topics but also to be able to anticipate on the professionals' experiences. We interviewed 16 healthcare professionals that were confronted with a disciplinary measure. To select these professionals, we used a list of all healthcare professionals on whom disciplinary measures have been imposed. Since July 2012, this list is publicly available on the website of the organisation that regulates the Dutch licences. It includes all imposed measures (except warnings and monetary fines) on healthcare professionals of the eight legally registered professions (https://www.bigregister.nl/). We used data from 1 July 2012 until 28 March 2014.

Participant selection

In total, 211 professionals were listed in the file. After exclusion of individuals with a 'last known address' abroad, 183 professionals were eligible for inclusion. These concerned 87 physicians, 31 nurses, 21 dentists, 16 healthcare psychologists, 13 psychotherapists, 11 physiotherapists and 3 midwives. No pharmacists were present on the list. Since the different professions were unequally represented, we aimed to include a proportional mix of healthcare professionals with a minimum of one per profession by purposive sampling. When no one within a profession was eligible for the study or willing to participate, we tried to include more professionals from other professions. Professionals were excluded if the specific events that led to the imposed measure took place abroad, or if the contact details of the professional could not be apprehended.

Thirty-four healthcare professionals were invited for an interview by letter in which a clear description of the study and an outline of the interview were provided. Also, the process of member check and anonymity were described. Professionals that did not respond were phoned up to five times as a reminder. Sixteen professionals indicated they were willing to participate in the study, whereas 12 did not want to cooperate and 6 did not respond. Main reasons for not participating were that the professional wanted to leave the past behind or did not want to recall the specific events.

Interviews

In order to answer the research questions, an inventory of possible themes to explore with the interviewees was made based on the current literature and a brainstorm with three researchers (LMV, SW and RBK). Based on this inventory, two researchers (LMV and SW) developed a semi-structured interview guide. The third researcher (RBK) commented on this. After two interviews, the interview guide was adapted on some details. The guide focused on (1) a reflection of the events that led to the disciplinary process and on (2) professionals' experiences with and the impact of the disciplinary process and imposed measures. This paper focuses on the latter, and does not include specific

information of each case. This was done to ensure anonymity of the participants and because there was great variation in the events that led to the measure and the ability of the interviewees to reflect on these events. One researcher performed the interviews (LMV). Interviews were held face-to-face, without anyone else present, at a location chosen by the professional unless he/she preferred a telephone interview (n=5). The interviewer was female and had experience and training in performing interviews. No relationship was established with interviewees prior to the study. Field notes were made during the interview. All interviews were recorded and transcribed verbatim. Interviewees gave permission to use the anonymous interview report for analysis.

Analysis

In this study, we used inductive qualitative content analysis in which we explored themes and categories that emerged from the data. This analysis was done using Atlas-ti V.7.1. A codebook was developed based on this inductive analysis.[20] Two researchers (LMV and JWW) first analysed three interviews separately. They discussed differences until consensus was reached, and if necessary, the codebook was adapted. Remaining interviews were coded by one of the two researchers, and checked by the other researcher. Discrepancies were discussed until consensus was reached. Results, progress and data saturation were discussed during the process.

Setting

In the Netherlands, there are five disciplinary law tribunals. Any person who has been in the care of a healthcare professional (either as a patient or as a patient's relative) can file a complaint. Next to this, the Dutch healthcare inspectorate can file complaints. The healthcare inspectorate is responsible for approximately 2% of the complaints.[6] Complaints can be submitted until 10 years after the events. When the tribunal receives a complaint, it first assesses the nature of the complaint. If the complaint is found to be inadmissible, it is rejected. When the complaint is accepted, a public hearing takes place. The complainant and defendant are not obliged to be present at the hearing, however, in court both parties get the opportunity to clarify their views and answer the questions of the tribunal. After this, the tribunal will deliberate and make a decision. After a tribunal verdict, it is possible for the complainant and the defendant to file a high appeal at the central disciplinary tribunal. The complete process takes approximately 9 months on average, with a high appeal taking an extra year on average. In 1995, 792 complaints were filed. In 2013, this number was more than doubled to 1640 complaints, of which approximately two-third concern physicians. In 2013, 15% of the handled complaints resulted in a conviction of the healthcare professional.[21]

RESULTS

Study population

After 16 interviews, few new codes and no new overarching themes emerged from the data. Therefore, we decided to stop further recruitment of participants. The 16 participating professionals included 12 physicians (9 medical specialists, 3 general practitioners), 2 physiotherapists and 2 healthcare psychologists. Four of them were working in a solo practice, six with colleagues in a group practice and six were employed in an organisation. Thirteen professionals were men and three women. The imposed measures included 12 reprimands, 1 suspension and 3 removals from the register. Reasons for these measures included the provision of substandard care, incorrect diagnosis, inappropriate behaviour towards patients, and breach of confidentiality. All verdicts took place more than 6 months before the interview and most cases were concluded not longer than 2 years prior to our study.

On average, interviews lasted 1 h. There was great variety in the way the professionals reflected on the events. Some healthcare providers blamed everything that had happened on themselves. Other interviewees (partly) disagreed with the complaint and/or imposed measure. Several professionals felt that they were treated unfairly or questioned the methods, expertise and judgement of the disciplinary board.

Psychological impact

The analysis of the interviews showed that a disciplinary measure and the process around it can have a huge impact on healthcare professionals. On a personal level, the period may leave a deep impression, although some professionals indicated that the impact of the process on their emotional well-being was limited. Several professionals indicated that they felt insecure, powerless and sometimes even depressed during the disciplinary process. Also, the treatment during the hearing of the disciplinary board was a negative experience for several interviewees. For example, one professional felt to be treated as guilty during the disciplinary process. These negative feelings were not limited to the disciplinary process, but for some endured long after the process had come to an end, with some experiencing sleepless nights and reliving the disciplinary process for a year after it concluded. Some professionals indicated to have sought counselling or psychological help after the disciplinary process. Furthermore, some professionals felt threatened by the patient and their family during the process. Several professionals were afraid for new complaints after the process had ended. Some stated that their colleagues experienced these feelings as well. Box 1 presents an overview of quotes from the interviews, related to psychological impact.

Box 1. Psychological impact

Misery
"It's a very negative experience and it's annoying for the family as well. It gets you down and almost makes you depressed, although you get over it as well."

"I had the impression that I had to pay [for my mistake]. It's the impression I had from the moment I walked in [the disciplinary hearing], just by the way they treated me."

Fear
"I was afraid afterwards (after the disciplinary hearing), because I had to walk outside and didn't have the police guarding me. I was thinking about what that man (the complainant) would do. He was delusional and had developed paranoid delusions about his treatment. What was he going to do at the moment I walked outside alone?"

"I'm terribly afraid of white envelopes because the disciplinary boards' letters are in a big A4 envelope that only has a postal code on it."

Long-term impact
"I don't relive being in front of the disciplinary board anymore. For about a year I would wake up every night at 3 AM and would start to explain what had happened."

Interviewer: "Did you receive any support or assistance in the period after you were suspended, or would you have required any?"
Professional: "No. I certainly needed it, but I arranged it myself. I needed counselling."

Professional impact

The disciplinary process takes time and may require a lot of energy. One professional indicated to have stopped working for a few weeks to prepare for the disciplinary process, and to avoid being distracted in providing patient care.

Some interviewees experienced support from their organisation, for example, from their direct colleagues, though one professional indicated that the process damaged his trust in colleagues and that it was harder to get things done in the organisation after the measure.

Professionals described several ways of dealing with the imposed measure. Some found a way to work around the constraints, for example, by working as a medical consultant or by transferring some activities to registered professionals.

In response to the imposed measure, several professionals said they became overcautious because they wanted to prevent complaints and did not want to experience the disciplinary process again. Some even stated that they avoided treating certain patients or cases.

The disciplinary process and measure also had financial impact on the disciplined professionals. The disciplinary process itself can lead to high costs for the professional, for example, hiring a lawyer. Some healthcare professionals indicated that they lost patients due to the imposed measure, though others indicated that, despite the measure, patients kept coming to their practice. One interviewee experienced that competing professionals from the same profession used the measure as an argument to keep patients away from him. Discontinuing working as a healthcare professional, for example,

due to a suspension, has financial consequences as well due to a loss of income. Box 2 presents an overview of quotes from the interviews, related to professional impact.

Box 2. Professional impact

Interference with patient care
Professional: "We took one or two weeks leave from work at the start of the disciplinary case, so we could prepare in peace. It's not good if you're thinking about these things."
Interviewer: "While you're working…"
Professional: "You just can't take care of people [while preparing for the disciplinary hearing], so that's what we did. But you can't continue taking leave forever so, eventually, we returned to work. And then it takes about half a year before the disciplinary hearing takes place. That is a very long time for the people involved."

Colleagues and organisation
"Look, I spoke to someone who had experienced the same thing, a psychiatrist. And that's wonderful because you both have that same powerless feeling; that feeling that you try so hard, work so hard and make an effort, and then you get this for some nonsense. That is encouraging."

"Well, I have zero trust in my colleagues. If we experience another situation that I expect might go the same way, then I'll be the first to knock on the door of journalists to give my own explanation to a media organisation of my choice, rather than giving information to people who only want a sensational front page."

Defensive practice
"Yes, I'm constantly hedging."

"But I did become afraid. I used to be carefree in my practice but that has been affected, and for that I blame the system."

"Well, initially you start to distrust people. You begin to wonder whether each of your patients could be a potential complainant. That's the response you have."

Financial consequences
"It has cost me a lot of money to go to the disciplinary board with a lawyer."

"The impact is, in the way I experience it, that I get clients that are referred to me or received a recommendation for me. And after they've visited me, they search the internet, and then immediately cancel their treatment."

Factors enhancing psychological and professional impact

A recurring theme in the interviews is the overt publication of disciplinary measures. None of the professionals was positive about this policy. Especially the fact that verdicts are sometimes published in local newspapers is found to be unnecessary and harmful. Some professionals stated that patients cannot fully understand the considerations and decision-making behind a certain verdict and might wrongly decide to avoid the healthcare professional. Also, other media might copy the published information, which could impact the healthcare professional profoundly. For example, searching with Google might only result in information about the imposed measure. This does not only impact the healthcare professional, but also his family and colleagues as mentioned by

some professionals. Furthermore, information on the internet might be present until long after the measure has expired (a reprimand, eg, expires after 5 years). Several interviewed professionals felt unfairly labelled as criminals while it was never their intention to do anything wrong. They thought that the media played a major role in this 'condemnation' of healthcare professionals. In their opinion, journalists are not looking for the truth but want to write juicy stories. One interviewee suggested that disciplinary law should reduce sentences in cases that receive a lot of media attention, which is common in criminal law. Also, some interviewed professionals stated it is hard for care providers to defend themselves against claims by patients in media because they are bound to the law of confidentiality.

Several interviewees stated that the disciplinary process takes too much time, which contributes to feelings of stress. Some professionals decided not to file an appeal because they did not want to go through the whole process again, even though they did not agree with the outcome of the disciplinary process. Box 3 presents an overview of quotes from the interviews, related to factors enhancing psychological and professional impact.

Box 3. Factors enhancing psychological and professional impact

Publication of measures

"The reprimand comes with an ad in the newspaper. I can only say, that's just abusive. Your surname, given name, profession and place of residence are all listed in the newspaper after you've made a wrong diagnosis. I mean how many people with that name live in the same city. A criminal is only listed with his initials, and they have done something wrong on purpose."

"Imagine that your daughter comes to you and says: 'Dad, what's this thing I read about you on the internet?'"

"Publishing the measure with both given name and surname is unnecessarily hurtful, and it creates a lot of anxiety among patients. It gives patients the feeling of being unsafe. Patients can't assess the grounds for such a verdict."

Media coverage

"One of my colleagues spoke to the press. When you see the part that was aired on television, the part that they took from it, you see him saying three things, but they've excluded everything else he explained. So it sounds as everything went completely wrong."

"Patients can say whatever they want in the media, but a doctor can't defend himself because when he does say something, he violates the law of confidentiality."

Duration of the disciplinary process

"It's terrible, and it goes on and on. The complete process lasted four years."

"I didn't agree with it [the disciplinary verdict] completely, but thought it won't help anyone going through all of this again."

DISCUSSION

Principal findings

This study shows that the disciplinary process and imposed measures can have a profound impact on healthcare professionals. Professionals described feelings of misery and insecurity both during the process as in its aftermath. Furthermore, they reported to fear receiving new complaints and provide care more cautiously after the imposed measure, sometimes leading to defensive practice. Factors that may enhance the psychological and professional impact are the duration of the disciplinary process and time, money and energy this takes, as well as the overt publication of measures and possible media coverage the case receives. Although a disciplinary measure is meant to have a corrective effect, our results suggest that the impact that is experienced by professionals might also hamper optimal rehabilitation. However, our results do not indicate that all healthcare professionals under investigation have similar experiences. The impact of disciplinary procedures differs among professionals, and may depend on context, severity of the case, and individual characteristics of the professional.

Strengths and limitations

Our study included a range of healthcare professions with a mix of cases and imposed measures, and had a relatively good response rate considering the sensitive subject and the varying group of interviewees. It has, however, some limitations. The results may be influenced by our selection. First, our study only included professionals that were sanctioned. This is a minority (approximately 15%) of all professionals against whom a complaint is filed at the disciplinary tribunal.[21] Their experiences might differ from those of professionals that were not sanctioned. Professionals that were sanctioned might look back with a more negative recollection of how things went down and how they felt. Second, our study population was not in all aspects representative for the group healthcare professionals with an imposed measure especially because it lacked dentists and nurses. Those two groups together comprehended a quarter of all substantive complaints in 2013.[21] Concerning the type of imposed measure our sample did seem to be representative with a slight over-representation of reprimands and removals from the register.[21] Finally, the number of interviewees was limited, which might restrict the generalisability.

It is known that the background and preconceptions of the researchers influence the findings and conclusions, especially in qualitative research.[22] To strengthen the design of our study both researchers experienced with the research theme as researchers relatively new to the subject were involved in study design and analysis. A researcher new to the subject but experienced in qualitative healthcare research collected the data.

Comparison with other research

The major psychological impact shown in our results confirms the results of a recent study into the emotional responses of physicians to complaints. This study showed an association between complaints procedures and risks on depression, anxiety and suicidal ideation.[23] Another study revealed that anger, distress and the feeling to be personally attacked are common responses to litigation.[24] Professionals in our study emphasised similar responses to the disciplinary process. This psychological impact might also be reflected by the main reasons for non-respondents not to participate. They wanted to leave it all behind them, and did not want to recall the specific events. The length of the disciplinary process was often mentioned as a factor that contributed to the emotional impact. Professionals experienced the duration of the process, which on average takes approximately 9 months (with a high appeal adding an extra year on average), as too long and as a source of inducing stress.[21] For some professionals, it was the sole reason for not filing an appeal, since they did not want to go through the process again and experience the same feelings. Furthermore, some professionals mentioned that they felt they were treated as already found guilty during the process, resulting in feelings of powerlessness. This notion is also recognised in the evaluation report of the GMC, in which it was recommended to establish a culture where doctors feel they are treated as 'innocent until proven guilty'.[25]

The professional impact by changing behaviour out of fear for new complaints and therefore being overcautious has been identified by previous studies as an adverse outcome of the complaints process.[26,27] This can be positive, for example, overdocumentation and consenting, or negative, that is, withdrawal from the doctor–patient relationship. A recent study among physicians in the UK showed that 89% with a recent and 83% with a past complaint reported hedging behaviour as a result of the complaint; 50% of doctors with a current and 43% of doctors with a past complaint reported avoidance behaviour.[23] The disciplinary process might also interfere with providing care as a result of the time and energy it takes and its associated costs. Professionals going through a complaints process often take time off work.[23] Furthermore, interprofessional relations and the professionals' position within the organisation might be influenced, with professionals going through the complaints process previously having reported that they felt bullied.[23]

Since July 2012 the imposed measures (except monetary fines and warnings) are published online in the Netherlands with name, profession, place of residence and a short description. Most verdicts are published anonymously on the website of the disciplinary boards. Verdicts that are found to be informative for a larger audience can be published anonymously in the government gazette or a medical journal. Furthermore, all measures (except warnings) are published in a local newspaper, mentioning name, profession and place of residence.[28] This publicity policy has been highly criticised by

respondents, and was experienced as unnecessary and harmful. In the UK, the Medical Defence Unit recently pleaded that the GMC should scrap the warnings, a low level GMC sanction, because it might negatively affect doctor's career because employers might mistake them for something more serious.[29]Professionals in our study mentioned these consequences as well, furthermore making note of the fact that patients possibly are not capable to distinguish between types of measures. In the Netherlands, the medical association pleaded in 2013 to scrap publication of reprimands and monetary fines.[30]

Additional media coverage on the case might enhance emotional impact. Especially coverage on the case before a verdict has been reached can increase the feeling of treated as guilty. Some respondents felt like they were labelled as a criminal. Online media coverage might impact the disciplined healthcare professional for long after the process, with the case coming up every time their name is typed in a search engine. Recently the opportunity arose to ask search engines to delete certain links to webpages that might be harmful and lay in the past, the so-called 'right to be forgotten'.[31] This, however, does not erase the specific webpage (only the links), and people might still be able to retrieve the information using other strategies. Respondents mentioned that public measures and additional media coverage furthermore contribute to the social impact the process has, with people in their near environment asking them about the situation.

Implications and further research

Because of the huge psychological impact and the possible consequences for rehabilitation afterwards, our findings suggest a need for moral support of professionals before, during and after the disciplinary process. This kind of support is currently absent in the Netherlands, as well as in most other countries. In the UK, however, any doctor who is being investigated by the GMC can access the GMC's Doctor Support Service provided by the BMA Doctors for Doctors Unit. This service provides free confidential emotional support from a specialty trained fellow doctor accompanying a doctor to a hearing if their case has been referred to a Medical Practitioner Tribunal Service (MPTS) panel.[32] Also, in New Zealand, a funded counselling service for stressed doctors was found to be effective and well received.[33] Further research is needed to examine if and how this emotional support should be organised in the Netherlands. Furthermore, disciplinary tribunals should take into account the stress and emotional impact that healthcare professionals experience, and assess if it is deemed necessary to adjust their procedures and communication accordingly. Our findings suggest that there are several factors that impact professionals in executing their profession after the imposed measure. These concern intrinsic factors of the healthcare professional, such as distress and the fear of new complaints, as well extrinsic factors in his environment such as the relation with other healthcare professionals. High rates of recidivism have been identified for physicians that are sanctioned.[34] Finding a way of dealing with these factors is therefore of great

importance for adequate rehabilitation of the disciplined professional. Further research is needed to identify adequate ways to address these factors, and examine what responsibility organisations, professional bodies and other relevant authorities should take.

REFERENCES

1. Kohn LT, Corrigan JM, Donaldson MS, eds. To err is human: building a safer health system. Washington DC: The National Academies Press; 2000.
2. Stelfox HT, Palmisani S, Scurlock C, et al. The "To Err is Human" report and the patient safety literature. Qual Saf Health Care 2006;15:174–8.
3. Jones A, Kelly D. Deafening silence? Time to reconsider whether organisations are silent or deaf when things go wrong. BMJ Qual Saf 2014;23:709–13.
4. Leape LL, Fromson JA. Problem doctors: is there a system-level solution? Ann Intern Med 2006;144:107–15.
5. Hout FA, Cuperus-Bosmat JM, de Peuter OR, et al. [Disciplinary measures for healthcare practitioners in the Netherlands 1983–2002]. Ned Tijdschr Geneeskd 2007;151:881–6.
6. Hout FAG, Kaupmann NL, Alhafaji FY, et al. Tuchtklachten van de Inspectie voor de Gezondheidszorg effectief voor aangeklaagden en beroepsgenoten. Tijdschr Gezondheidswetenschappen 2011;89:58–64.
7. Sijmons JG, Woestenburg NOM, Dorscheidt JHHM, et al. Tweede evaluatie Wet op de beroepen in de individuele gezondheidszorg. [Second evaluation of the Healthcare Professionals Act]. Den Haag: ZonMw ;October 2013 (in Dutch).
8. Gaal S, Hartman C, Giesen P, et al. Complaints against family physicians submitted to disciplinary tribunals in the Netherlands: lessons for patient safety. Ann Fam Med 2011;9:522–7.
9. Cunningham W. The immediate and long-term impact on New Zealand doctors who receive patient complaints. N Z Med J 2004;117:U972.
10. Cunningham W, Wilson H. Complaints, shame and defensive medicine. BMJ Qual Saf 2011;20:449–52.
11. Scott SD, Hirschinger LE, Cox KR, et al. The natural history of recovery for the healthcare provider "second victim" after adverse patient events. Qual Saf Health Care 2009;18:325–30.
12. Waterman AD, Garbutt J, Hazel E, et al. The emotional impact of medical errors on practicing physicians in the United States and Canada. Jt Comm J Qual Patient Saf 2007;33:467–76.
13. Alam A, Klemensberg J, Griesman J, et al. The characteristics of physicians disciplined by professional colleges in Canada. Open Med 2011;5:e166–72.
14. Khaliq AA, Dimassi H, Huang CY, et al. Disciplinary action against physicians: who is likely to get disciplined? Am J Med 2005;118:773–7.
15. Morrison J, Wickersham P. Physicians disciplined by a state medical board. JAMA 1998;279:1889–93.
16. Oomen RJ, Biesaart MC. [Removal from the Dutch healthcare professionals register: considerations taken into account by the disciplinary tribunal from 2006 to 2011]. Ned Tijdschr Geneeskd 2012;156:A5269.
17. Moberly T. GMC should audit effects of its investigations on doctors, report recommends. BMJ Careers 2015. http://careers.bmj.com/careers/advice/GMC_should_audit_effects_of_its_investigations_on_doctors,_report_recommends (accessed Nov 2015).
18. Rimmer A. Report on suicides of doctors under GMC investigation will trigger review of procedures. BMJ Careers 2014. http://careers.bmj.com/careers/advice/view-article.html?id=20020063 (accessed Nov 2015).
19. Pope C, van Royen P, Baker R. Qualitative methods in research on healthcare quality. Qual Saf Health Care 2002;11:148–52.

20. Pope C, Ziebland S, Mays N. Qualitative research in health care. Analysing qualitative data. BMJ 2000;320:114–6.
21. Jaarverslag 2013 [Annual report 2013]. Den Haag: Tuchtcolleges voor de Gezondheidszorg en College van Medisch Toezicht; March 2014 (in Dutch).
22. Malterud K. Qualitative research: standards, challenges, and guidelines. Lancet 2001;358:483–8.
23. Bourne T, Wynants L, Peters M, et al. The impact of complaints procedures on the welfare, health and clinical practise of 7926 doctors in the UK: a cross-sectional survey. BMJ Open 2015;5:e006687.
24. Bark P, Vincent C, Olivieri L, et al. Impact of litigation on senior clinicians: implications for risk management. Qual Health Care 1997;6:7–13.
25. Horsfall S. Doctors who commit suicide while under GMC fitness to practise investigation. General Medical Council, 2014.
26. Cunningham W, Dovey S. Defensive changes in medical practice and the complaints process: a qualitative study of New Zealand doctors. N Z Med J 2006;119:U2283.
27. Nash LM, Walton MM, Daly MG, et al. Perceived practice change in Australian doctors as a result of medicolegal concerns. Med J Aust 2010;193:579–83.
28. Smit M. Ook berisping zorgverlener in lokale krant. Medisch Contact 2013. http://medischcontact.artsennet.nl/archief-6/Tijdschriftartikel/128170/Ook-berisping-zorgverlener-in-lokale-krant.htm
29. Rimmer A. GMC warnings should be scrapped, says MDU. BMJ Careers 2014. http://careers.bmj.com/careers/advice/view-article.html?id=20020085 (accessed Nov 2015).
30. Artsen willen stop op openbare berispingen. Skipr 2013. http://www.skipr.nl/actueel/id14046-artsen-willen-stop-op-openbare-berispingen.html (accessed Nov 2015).
31. Payne D. Google, doctors, and the "right to be forgotten". BMJ 2015;350:h27.
32. GMC to review its treatment of vulnerable doctors under fitness to practise investigation GMC. 2014. http://www.gmc-uk.org/news/26011.asp
33. Cunningham W, Cookson T. Addressing stress-related impairment in doctors. A survey of providers' and doctors' experience of a funded counselling service in New Zealand. N Z Med J 2009;122:19–28.
34. Grant D, Alfred KC. Sanctions and recidivism: an evaluation of physician discipline by state medical boards. J Health Polit Policy Law 2007;32:867–85.

Chapter 4

Getting Back On Track

A systematic review of the outcomes of remediation and rehabilitation programmes for healthcare professionals with performance concerns

As published in BMJ Quality & Safety

Weenink JW, Kool RB, Bartels RH, Westert GP. Getting back on track: a systematic review of the outcomes of remediation and rehabilitation programmes for healthcare professionals with performance concerns. BMJ Qual Saf. 2017 Dec;26(12):1004-1014.

ABSTRACT

Objective To provide an overview of the evidence regarding outcomes of remediation and rehabilitation programmes for healthcare professionals with performance concerns, and to explore if outcomes differ for specific concerns and professions.

Methods A search in four databases (Medline, Embase, PsycINFO and CINAHL) was conducted from 1 January 1990 to 7 May 2017. Studies reporting on outcomes of nationwide and state-wide programmes aimed at remediation and rehabilitating healthcare professionals with performance concerns (ie, dentists, midwives, nurses, pharmacists, physicians, physiotherapists, psychologists and psychotherapists) were included.

Results We included a total of 38 studies. More than half of the studies included programmes in the USA (57.9%), and a majority of studies focused on outcomes for physicians (78.9%) and on outcomes for substance use disorders (SUDs, 63.2%). Programme completion rates for SUDs were positive and approximately 80%–90% of participants were employed after treatment. Studies that reported on remediation outcomes for dyscompetence, almost all from Canada (7/8), showed varying results. One study compared outcomes for performance concerns in the same programme (ie, SUD and other mental and behavioural problems) and showed comparably successful results. No study specifically compared outcomes between professions.

Conclusion The literature is dominated by outcomes for physicians in North American programmes, with positive outcomes for SUD and varying outcomes for dyscompetence. Based on our findings we cannot make valid comparisons in outcomes between professions and specific performance concerns, and we call for other programmes to report on outcomes for different professions and concerns. Because of the positive outcomes of physician health programmes, other countries should consider introducing similar programmes to support healthcare professionals getting back on track.

INTRODUCTION

Approximately 0.5%–12% of physicians have performance problems.[1] A previous study we conducted showed that poor performance is an issue across healthcare professions, with one in three professionals indicating that they had experienced a poorly performing colleague in the preceding year.[2] Performance problems can be thought of as symptoms of underlying disorders, which may concern mental and behavioural problems (eg, substance abuse), physical illness (eg, disease-related cognitive impairment) or a failure to maintain knowledge and skills.[3] Since such problems can have a serious impact on patient safety, it is important to address them timely and adequately.

Diversion programmes have become a popular alternative to traditional disciplinary actions for professionals with substance use disorders (SUDs) and other mental and behavioural health (MBH) problems.[4] The aim of these programmes is twofold: to help professionals with problems and to protect patients from professionals who are unable to perform adequately.[5] They originated in North America, where programmes for physicians with mental health and addiction problems were introduced in the 1970s.[6] Each state or province organises a physician health programme (PHP) that facilitates treatment and long-term monitoring in a confidential and non-punitive way. The programmes assess, monitor and support the physician (who signs a formal, binding contract for PHP participation), ensuring compliance with treatment and practice restrictions.[7 8] Other countries, such as Australia, the UK, Norway, Spain and Switzerland, have followed introducing programmes for physicians with mental health and addiction problems.[9] Whereas most US states offer programmes for SUDs and mental health problems, Leape and Fromson[3] concluded in 2006 that there are few programmes that address knowledge and skill deficits, clinical dyscompetencies or disruptive behaviour. In other countries, such as Canada, the UK and New Zealand, physician performance assessment programmes arrange or help plan a form of remediation for physicians with unsatisfactory competency assessments.[10 11]

A previous review about the use of health services by physicians concluded that few evaluations have been made of special treatment programmes apart from the American programmes for impaired physicians, which report success rates owf 70%–80%.[12] These evaluations mainly focus on outcomes for SUDs for physicians. Some programmes do, however, provide services for a range of performance concerns, such as disruptive problems, sexual offence, malpractice, stress-related problems and physical illnesses.[9] Additionally, some programmes provide services to other professions than physicians (eg, dentists, pharmacists, medical psychologists, nurses) and separate programmes exist for other health professions as well.[4] Furthermore, few studies report outcomes of remediation programmes for physicians with performance concerns.[11] The aim of the current literature review is to provide an overview of the evidence regarding outcomes of programmes aimed at remediating or rehabilitating healthcare professionals with

performance concerns, without limiting to the cause(s) or nature of these performance concerns. Furthermore, the review explores if outcomes differ for specific performance concerns and professions.

METHODS

Data sources and searches

A search strategy was developed for the databases Medline, Embase, PsycINFO and CINAHL. We used a set of publications on remediation and rehabilitation programmes that we were aware of, to identify relevant search terms and develop a preliminary search strategy. We consulted a database expert from the library of our institution for feedback on the search strategy, after which minor adjustments were made. The search was developed to provide a high sensitivity to finding key articles, while keeping the number of references to screen a maintainable size. We conducted the search on 7 May 2017. Details of the search strategy can be found in Appendix 1.

Eligibility criteria

We included English-language peer-reviewed research articles published in 1990 or later that reported on outcomes of remediation and/or rehabilitation programmes for poorly performing professionals. Studies had to include one of the following eight healthcare professions: dentists, midwives, nurses, pharmacists, physicians, physiotherapists, psychologists and psychotherapists. These are professions for which a licence is required in the Netherlands. A remediation or rehabilitation programme was defined as a countrywide or state-wide available programme aimed at remediating and/or rehabilitating professionals with performance concerns, regardless of the cause or nature of these concerns. Conference abstracts were excluded. Programmes that were only available to professionals from one or a limited set of institutions were excluded. Studies had to include licensed professionals in practice. Studies focusing on students, graduates, trainees or residents were excluded.

Selection, data extraction and quality assessment

Two authors (J-WW, RBK) screened all titles and abstracts using Rayyan software for citation screening.[13] Discrepancies were discussed until consensus was reached. Relevance of the remaining articles was determined by full-text evaluation by the same two authors, and again discrepancies were discussed until consensus was reached. Reference lists of assessed articles (backward snowballing) and citations of included articles (forward snowballing) were scanned to identify other potentially relevant articles. This was done until no new relevant articles emerged.

A digital data extraction form was developed. The form contained information on general study characteristics, the remediation/rehabilitation programme and on measures and outcomes described in the study. One researcher (J-WW or RBK) extracted data of each study, and consulted the other researcher when in doubt. One researcher (J-WW) used the Newcastle-Ottawa Scale (NOS) for quality assessment of included studies.[14] NOS focuses on observational studies and consists of three domains of potential bias, namely selection, comparability and outcomes. The instrument was slightly adjusted for a good fit to our review. We report our study as far as applicable in accordance to the preferred reporting items for systematic reviews and meta-analyses.[15]

Data reporting

The nature of performance concerns reported in the included studies differed and conceptually it makes sense to distinguish different types of concerns. We differentiate three categories of concerns and have structured our results accordingly. The first category, health problems, concerns professionals that are personally sick but are professionally healthy (although their health problems might impact their professional performance). This includes professionals with SUD or mental illness. The second category, knowledge and skills problems (dyscompetence), concerns professionals that are personally healthy but professionally unwell, for example due to lapsed skills. The third category, personal problems and unprofessional behaviour, concerns professionals that have problems that impact their professional lives, but who do not have any knowledge or skills problems. Examples of this are burn-out and boundary violations.

RESULTS

The search strategy resulted in 3358 unique hits. After exclusion of 3285 articles during title and abstract screening, the full texts of 73 articles were assessed for eligibility. A further 18 articles identified through the reference lists of assessed articles were assessed for eligibility as well. Of the 91 assessed full-text articles, 38 met our inclusion criteria and were therefore included in the current review. The main reasons for exclusion were that the article did not report on outcomes (n=22), that the article concerned a subanalysis of data of another study that was already included (n=9) or that the article was published before 1990 (n=6) (see figure 1).

More than half of the studies included programmes in the USA (57.9%), followed by studies from Canada (26.3%) (see table 1). A majority of the studies focused on outcomes for physicians (78.9%) and on outcomes for SUDs (63.2%). Of the 38 studies, 13 (34.2%) were published between 1990–1999, 17 (44.7%) between 2000–2009 and the remaining 8 (21.1%) in 2010 or later.

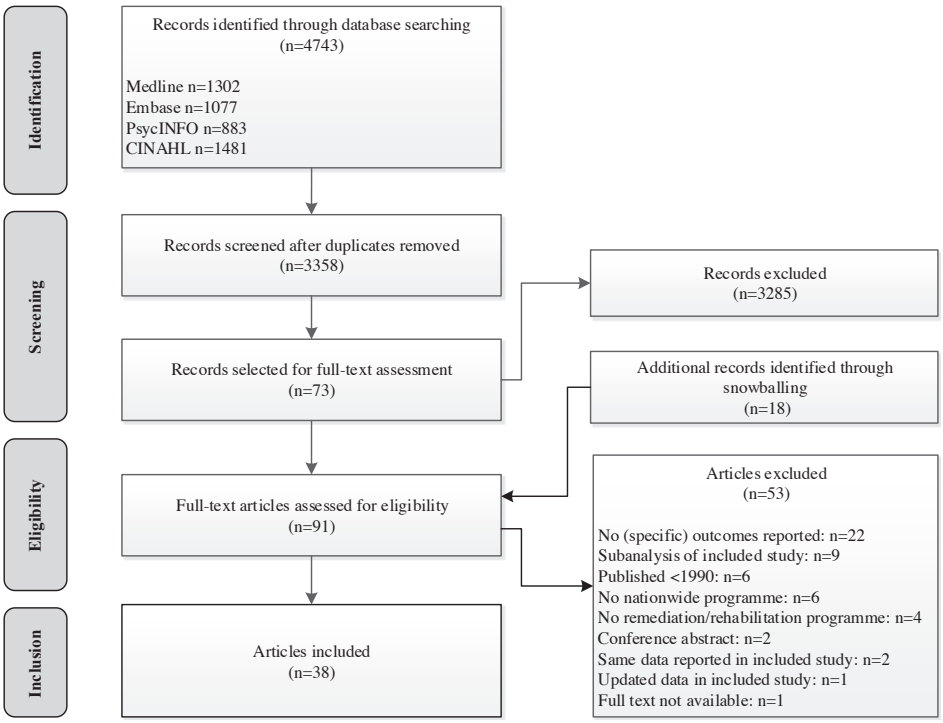

Figure 1. Flow chart inclusion process

Quality assessment

A majority of the studies (84.2%) selected a representative sample of enrolled professionals in the programme, whereas six studies used a select group of professionals (15.8%). Six studies (15.8%) included a comparison group, of which one study matched the included groups by age and sex. Other studies did not match their study groups. Of the 38 included studies, 30 reported on outcomes based on administrative data of the programme (78.9%), whereas 8 studies only reported on self-reported outcomes (21.1%). Approximately a third of the studies (34.2%) had an average follow-up of 3 years or longer. Data on quality assessment of included studies can be found in appendix 3.

Health problems

Substance use disorder

A total of 19 studies looked at outcomes for SUDs, of which 18 were from the USA (see appendix 2). Most studies reported on the outcomes of one programme, whereas McLellan et al[16] reported on an extensive evaluation of 904 physicians enrolled in 1 of 16 PHPs between 1995 and 2001. Studies looked at programme completion, employment status at follow-up (if professionals had remained or returned to practice), and abstinence or relapse rates. Of the physicians admitted to one of the 16 PHPs, 64.2% had completed

Table 1. Characteristics of included studies

	US (57.9%, n=22)	**CAN** (26.3%, n=10)	**AUS** (5.3%, n=2)	**NOR** (5.3%, n=2)	**NZ** (2.6%, n=1)	**UK** (2.6%, n=1)	***Total (n=38)***
Performance issues							
Health problems	21	2	2	-	-	1	*26 (68%)*
Knowledge/skills problems	-	7	-	-	1	-	*8 (21%)*
Personal problems	1	1	-	2	-	-	*4 (11%)*
Study population							
Physicians	16	9	2	1	1	1	*30 (79%)*
Nurses	6	-	-	1	-	-	*7 (18%)*
Dentists	2	-	-	-	-	1	*3 (8%)*
Pharmacists	3	-	-	-	-	-	*3 (8%)*
Physiotherapists	-	1	-	-	-	-	*1 (3%)*
Source of referral							
Self-referral	7	1	1	2	-	1	*12 (32%)*
Family or peers	8	-	1	-	-	-	*9 (24%)*
Employer	8	1	1	-	-	-	*10 (26%)*
Boards & authorities	9	8	1	-	1	-	*19 (50%)*
Treating physician	7	-	1	-	-	-	*8 (21%)*
Other	7	-	1	-	-	-	*8 (21%)*
Not reported	10	1	1	-	-	-	*12 (32%)*
Participation							
Voluntary	5	2	-	2	-	1	*10 (26%)*
Mandatory	1	1	-	-	1	-	*3 (8%)*
Mixed	5	1	2	-	-	-	*8 (21%)*
Not reported	11	6	-	-	-	-	*17 (45%)*
Main outcomes							
Program completion	5	1	-	-	-	-	*6 (16%)*
Return to practice	10	-	2	-	-	-	*12 (32%)*
No relapse/recurrence	15	2	-	-	-	-	*17 (45%)*
Successful recovery	4	5	1	-	1	-	*11 (29%)*
Improvement	-	3	-	2	-	1	*6 (16%)*
Other	-	2	-	1	-	-	*3 (8%)*

US=United States; CAN=Canada; AUS=Australia; NOR=Norway; NZ=New Zealand; UK: United Kingdom

their contract period and 16.5% had their contracts extended beyond the monitoring period.[16] Other studies reported programme completion rates of 72% and 85% for physicians and 47.6% and 64% for nurses.[17–20] At 5-year follow-up, 78.7% of physicians in the 16 PHPs were licensed and working.[16] Three other studies reported rates of 82%, 92% and 95% for physicians that were practising medicine at follow-up,[21–23] whereas four

studies reported return to practice rates of 74%, 81%, 90% and 90% for nurses.[4 19 24 25] In the evaluation of 16 PHPs, 81% of physicians who completed treatment and resumed practice under supervision and monitoring remained abstinent over 5 years, whereas 19% of physicians relapsed (of whom 26% had a repeat positive test).[16] Fourteen other studies reported abstinence rates between 56% and 86% for physicians, 60% and 94% for nurses, and 75% and 81% for healthcare professionals in general. Additionally, four studies reported successful recovery of physicians and nurses, defined as sustained recovery of longer than 2 years or a combination of participants who had no or just one relapse.[26–29] Recovery rates were 81%, 86% and 91% for physicians and 94% for nurses.

Mental illness

One study specifically studied recurrence rates in 50 physicians with bipolar disorder or unipolar depression enrolled in the Ontario PHP between 2001 and 2007.[30] Of these physicians, 52% had some degree of recurrence during a mean observation period of 25 months, and 36% (18 out of 50 physicians) had stopped work owing to recurrence.

A combination of SUD, mental illness and other health issues

Another six studies looked at outcomes for multiple performance concerns, of which five concerned participants with either (or both) SUDs and MBH problems. One of these studies compared outcomes for physicians on SUD and MBH contracts and observed similar outcomes for both groups, with completion rates of 74%–75% and relapse rates (defined as any evidence of failure to adhere to recommended treatments or any unprofessional conduct) of 8%–12%.[31] Two studies concerned the Victorian Doctors Health Program from Australia. One reported a 76.9% return to practice rate and an 87.7% abstinence rate for physicians enrolled in the programme between 2001 and 2004.[32] The other study explored return to work rates after being on sick leave as an outcome of the programme for physicians. Of 39 physicians that were on sick leave in the first month of involvement with the programme, 84% (n=31) had returned to medical work.33 Two studies of the Missouri PHP reported recovery rates of enrolled physicians (defined as being stable, recovering and working well within the programme) of 94% and 90%, respectively.[34 35]

A study of the Practitioner Health Programme in the UK included 190 physicians and 10 dentists diagnosed with mental health problems only (51.5%), addiction problems only (18%), a physical health problem only (1%) or comorbid disorders (26%).[36] Levels of distress, work and social adjustment and global improvement were explored using a questionnaire at baseline, 8 weeks and 26 weeks. At 26 weeks, participants that scored above the cut-off point for distress dropped from 62.5% to 31.5%, and significant improvement was observed for work and social adjustment. Furthermore, 88.4% of participants reported to feel at least a little better.

Knowledge and skills problems

Dyscompetence

Seven of eight studies looking at outcomes for dyscompetence were from Canada, of which four concerned the College of Physicians and Surgeons of Ontario (CPSO), the licence authority that assesses a random sample of physicians (see table 2). CPSO will provide recommendations and direct to educational opportunities for those in need. In two studies, reassessment scores for physicians that previously had been assessed as poor performers showed satisfactory improvements for 52% and 82.7% of physicians.[37 38] Another study that specifically looked at 18 physicians with neuropsychological impairment who scored unsatisfactory and were reassessed, found that 6 physicians (33.3%) improved significantly, whereas 12 (66.7%) remained unsatisfactory at retesting.[39] For five physicians that did not improve themselves at reassessment, Hanna et al40 found that an intensive remedial continuous medical education programme resulted in improvement for one physician, whereas another remained the same and three deteriorated. Two studies concerned Quebec Medical College (CMQ), and Goulet et al[41] found that of individualised retraining activities, 70% led to attainment of the training objectives, whereas 15% led to partly attained objectives. Of poorly performing physicians that completed a remedial professional development programme, 30%–40% succeeded in improving their performance for record keeping, clinical investigation, diagnostic accuracy and treatment and follow-up.[42] A New Zealand study found that 14 out of 19 doctors (73.7%) that entered the remediation programme were considered to be practising at an adequate level at the end of remediation.[43] A Canadian study looking at reassessed physiotherapists found that of eight physiotherapists who had a suboptimal outcome at the first assessment and who required remediation, practice enhancement or reassessments, seven (87.5%) scored the best possible outcome at the second assessment and one (12.5%) completed with recommendations.[44]

Personal problems and unprofessional behaviour

Burn-out and emotional distress

Three studies looked at recovery from emotional distress and/or burn-out (see table 3). Of physicians that had used the Quebec PHP for burn-out, 57% believed that their situation had improved with the help of the service.[45] The other two explored outcomes of a resource centre in Norway (Villa Sana) providing 1-day or 5-day interventions to reduce burn-out. For 184 physicians that participated, significant reductions of emotional distress, job stress, emotion-focused coping and neuroticism were observed from baseline to 3-year follow-up.[46] For 160 nurses, there was a significant reduction in level of emotional exhaustion, and rates for cases that scored above cut-off for emotional exhaustion were reduced from 40% at baseline to 26% at 1-year follow-up.[47]

Table 2. Characteristics and outcomes of studies on knowledge and skills problems

Study	Programme	Country	Period	Study population	Source of referral	Participation
Goulet 2005	Remedial professional development program CMQ [a]	Canada	1992-2002	305 physicians with clinical shortcomings	Professional Inspection Committee (PIC)	No data (though in general mostly imposed)
Goulet 2007	Remedial professional development program CMQ [a]	Canada	1993-2004	207 physicians with clinical shortcomings	Peer review process (69%), other [b]	Mostly mandatory (only 4 participated voluntary)
Hanna 2000	Remedial continuing medical education CPSO [a]	Canada	1992-1995	5 physicians assessed as having incompetencies	CPSO's Physician Review Program (PREP)	Voluntary (though strongly encouraged)
Lillis 2014	Remedial Education program MCNZ [a]	New Zealand	2010-2011	19 doctors requiring remediation after assessment	MCNZ assessment	Mandatory
McAuley 1990	Peer Assessment Program CPSO [a]	Canada	1981-1985	56 physicians who provided unsatisfactory care	CPSO's Peer Assessment Committee	No data [c]
Norman 2015	Peer practice assessment CPO [a]	Canada	2004-2012	8 physiotherapists with suboptimal assessment [d]	CPO's Quality Management Committee	No data [c]
Norton 1998	Peer Assessment Program, CPSO [a]	Canada	1991-1996	81 physicians assessed as poor performers	CPSO	No data [c]
Turnbull 2006	Remedial continuing medical education, CPSO [a]	Canada	1997-2001	18 physicians assessed as poor performers [e]	CPSO's Physician Review Program (PREP)	No data

a. CMQ = Collège des médecins du Québec, CPSO = College of Physicians and Surgeons of Ontario, CPO = College of Physiotherapists of Ontario, MCNZ = Medical Council of New Zealand
b. Inquiry Division (19%), Committee on Discipline (6%)
c. The assessment and interview are mandatory, though not reported if and how remediation is mandated
d. 8 of in total 117 physiotherapists who were assessed twice or more
e. 18 out of a total of 45 physicians of which authors had neurological testing were reassessed due to initial poor performance

Data source	Follow-up	Main outcomes
Administrative data	No data	70% of the retraining activities led to attainment of the training objectives; 15% led to partly attained objectives, 13% failed to lead to attainment of objectives, and 2% involved missing data or withdrawal. All physicians who achieved their learning objectives did resume their practices (either by returning to their previous practices or starting practices within a new scope).
Administrative data	Up to 2 years	Significant improvements for proportion of physicians who had a pre and post assessment (n = 51), with satisfactory ratings with regard to record keeping (20% before and 54% after remediation), the clinical investigation plan (13% before and 59% after remediation), diagnostic accuracy (32% before and 61% after remediation), and patient treatment and follow-up (31% before and 67% after remediation).
Administrative data	3 years	One physician improved significantly (20%), one physician received an identical grade, two physicians decreased by one grade, and one physician decreased by two grades.
Administrative data	12 months	Of the 19 doctors who finished the remedial education program, 13 were considered to be functioning at the required level on the basis of sequential education supervisors' reports, and 1 doctor was found to be practicing at an acceptable level on reassessment (14/19 = 73.7%)
Administrative data	6-12 months	Of 56 physicians who were reassessed, 29 (52%) had satisfactorily addressed concerns, 12 (21%) had made improvements but still caused some concern, 11 (20%) had failed to make recommended improvements, and 4 (7%) had retired from practice.
Administrative data	5-7 years	8 physiotherapists had a suboptimal outcome (outcome D) at assessment 1 that needed remediation, practice enhancement or reassessments. Of these, 7 scored the best possible outcome (A) and 1 scored outcome C (Completed with recommendations) at assessment 2
Administrative data	6.1 years (SD ± 2.95)	Of 81 physicians previously assessed as poor performers (category C2 or D), 82.7% (67 of 81 physicians) had an acceptable score at the time of revisit (A, B or C1) and 14 physicians had a score of C2 (n=5) or D (n=9) at revisit.
Administrative data	1-3 years	6 physicians (33.3%) improved significantly. Twelve physicians remained unsatisfactory at retesting (of whom five had evidence of moderate or severe neuropsychological dysfunction that could explain their inability to improve - and this number rose to 9 (75%) using age-independent scoring).

Table 3. Characteristics and outcomes of studies on personal problems and unprofessional behaviour

Study	Programme	Country	Period	Study population	Source of referral	Participation	Data source	Follow-up	Measures and outcomes
Blais 2010	Quebec PHP	Canada	1999-2004	126 physicians using PHP for burnout problems	Self-referral	Voluntary	Questionnaire	No specific data [a]	Of 126 physicians that had used the PHP services, 57% reported improvement of their situation due to using the PHP, whereas 31% reported partly and 6% reported no improvement (6% not applicable)
Isaksson-Ro 2009	Villa Sana	Norway	2004-2006	160 nurses using service for (prevention of) burn out [b]	Self-referral	Voluntary	Questionnaire	Average 57 weeks (SD 6.1)	The level of emotional exhaustion (burnout) was significantly reduced from 2.87 at baseline to 2.52 at follow-up, and the proportion of cases that scored above the cut-off for emotional exhaustion was reduced from 40% to 26% at follow-up. No significant changes were observed for the proportion on part-time sick leave (6%) and on rehabilitation/disability benefits (1–2%)
Isaksson-Ro 2010	Villa Sana	Norway	2003-2005	184 physicians using service for (prevention of) burn out [c]	Self-referral	Voluntary	Questionnaire	Average 36.9 months (SD 1.9)	Significant changes between baseline and follow-up were observed for levels of emotional exhaustion, job stress, emotion-focused coping, and neuroticism. For changes in emotional exhaustion, job stress and emotion-focused coping, effect sizes were moderate (0.68, 0.72 and 0.49 respectively) and for neuroticism small (0.34)
Brooks 2012	Colorado PHP	United States	1986-2005	120 physicians monitored for boundary violations	Medical board (33%), other [d]	Both voluntary and mandatory	Administrative data	Average 713 days	87.8 percent of physicians reported no further violations (according to the physician or external monitoring sources) at follow-up. For non-patient violations this was 90% (34/38), for nonsexual patient violations 83% (24/29) and for sexual patient violations 90% (28/31)

a. Survey conducted in 2007 for participants of the PHP between 1999-2004

b. 160 out of 172 nurses completed 1 year follow up

c. 184 out of 227 physicians who completed three year follow up

d. Administration 13%, self-referral 13%, peers 13%, attorney 12%, hospital 6%, malpractice 2%, other 12%

Boundary violations

Brooks et al[48] conducted a chart review of 120 physicians monitored for boundary violations in the Colorado PHP. At follow-up, 87.8% reported no further violations (according to the physician or external monitoring sources). For non-patient violations and sexual patient violations this was 90%, whereas for non-sexual patient violations this was 83%.

DISCUSSION

The current literature review provides an overview of the evidence regarding outcomes for professionals with performance concerns enrolled in remediation or rehabilitation programmes. A majority of the included studies concerned physicians with substance abuse enrolled in US programmes and reported positive outcomes. Although programmes seem to focus on a broad range of professions, limited evidence has been published about outcomes for other professions than physicians.

North-American programmes for physicians dominate the literature

The literature is dominated by outcomes for physicians in North American programmes. The high prevalence of studies from the USA could perhaps partly be explained by the relatively common occurrence of medical malpractice lawsuits in that country.[49] PHPs in the USA were developed keeping in mind that early detection of potentially impaired physicians protects patients and saves physicians' careers, and legal battles may be avoided by addressing these performance problems from a clinical perspective, instead of waiting for a crisis that necessitates disciplinary action.[50] Brooks et al[51] found that physicians who were enrolled in a PHP showed a 20% lower malpractice risk after monitoring than a matched cohort. The high prevalence of Canadian studies on outcomes for dyscompetence in our review could perhaps be explained by the pioneering position Canada has had in peer assessment programmes. The peer assessment programme of CPSO started in 1981 and was one of the first of its kind in North America. It served as a model for similar programmes elsewhere in Canada.[37 38] Although the literature is dominated by outcomes of North American programmes, previous studies have identified several programmes for physicians and other professions in Europe too.[9 52] No outcomes of these programmes have been reported in the literature and it is unclear if these programmes achieve similar results as the North American programmes. This calls for other existing programmes, in Europe and elsewhere, to publish their outcomes in the literature as well.

Outcomes for SUD are positive, for dyscompetence they vary

In our review, rehabilitation outcomes for SUDs were positive, with programme completion rates around 70%–80%, and 80%–90% of participants remaining/returning to

practice. Outcomes for healthcare professionals are more positive than those for the general population. Analysis of a national sample of publicly funded substance abuse programmes in the USA, for example, reported completion rates of 65% for residential programmes and 52% for outpatient settings.[53] It has previously been suggested that professionals in programmes are highly engaged and committed to remain in their profession, resulting in high recovery rates.[25] The unique core approach of PHPs compared with regular treatment approaches might also contribute to these positive results, with a previous study suggesting that outcomes for PHPs are much superior than other forms of addiction treatment.[6] Participants of PHPs sign a formal, binding contract which includes intensive random alcohol/drug testing in combination with compliance monitoring and support.[8] This means these programmes have therapeutic leverage, which could contribute to high recovery rates: when participants do not keep to the terms of their contract (eg, they continue using substances), they risk being reported to the medical board facing disciplinary action.

To determine the added value of rehabilitation programmes compared with traditional disciplinary approaches or other forms of addiction treatment, ideally matched cohorts of participants and non-participants with performance concerns would be studied. In our review, three studies compared the outcomes for professionals (physicians, nurses) enrolled in either an alternative diversion programme or a traditional disciplinary programme.[24 25 54] Outcomes with regards to relapse rates and employment were either similar or favourable for those in the alternative programmes, though it was not clearly reported how professionals were selected for either of the programmes and groups were not matched. Higher quality studies are needed to establish the added value of alternative programmes compared with disciplinary approaches and other forms of addiction treatment.

Outcomes for remediation after unsatisfactory assessment were ambiguous. A previous international survey about assessment and remediation in various programmes showed that the provision of remediation was patchy and variable in these programmes.[11] This might contribute to the variation in outcomes in our review, with only two of the eight included studies on remediation being published in recent years. A thematic review of the literature on remediation of deficiencies of physicians across the continuum from medical school to practice concluded that there is little evidence to guide best practices of remediation and called for more outcome-based research on this matter.[55] The latter was echoed by a think tank of experts in the field of medical professionalism, which recommended performing studies about improving medical professionalism when lapses occur and identifying best practices on remediation.[56] In structuring remediation more effectively for practising physicians, recent literature from the medical education domain on remediation of students, trainees and residents might prove useful. There

is a growing body of evidence on remediation in medical education, and several recent studies have suggested specific plans and frameworks.[57–60]

For other concerns, only a limited number of studies were found, with positive outcomes reported for emotional distress and boundary violations. In one study, recurrence rates for mental illness (bipolar disorder or unipolar depression) were high, though this could reflect the course of the illness instead of a result of the programme.

Comparing outcomes between professions and specific performance concerns

We did not find any study that specifically compared outcomes for different professions. Only a few studies reported outcomes for professions other than physicians and nurses, though these did not specifically compare outcomes between professions. Programme completion rates for nurses with SUDs were lower than those observed in studies about physicians, though differences in study design and context make a valid comparison difficult. Additionally, only one study did not focus on physicians or nurses at all. It is unlikely that in other professions such as dentistry, midwifery and pharmacy, performance concerns are less of an issue, and that raises the question if and how performance concerns are dealt with in these professions.

The high number of SUD studies could perhaps be explained by the fact that initially PHPs mainly targeted addiction. PHPs are organised on a state level and therefore many programmes exist. This has resulted in a lot of these programmes reporting their own results. Further explanations for the focus on SUD in the literature could be the relatively high prevalence (approximately 10%–12% for physicians, comparable to the general population[6]), and that SUD is considered as controllable behaviour and therefore feasible to treat, in contradiction to some other mental and behavioural conditions. It is noteworthy though that previous studies reported an increase of referrals for psychiatric disorders compared with SUD referrals, and it is unclear why there are not more studies focusing on outcomes for such problems.[35 61] Only one study compared outcomes for different performance concerns in the same programme. Outcomes for SUD and MBH contracts suggest that physicians with MBH problems can be monitored in a similar fashion and achieve similar positive outcomes as those with SUD.[31] We call for programmes to report and compare outcomes for specific performance concerns they address. Based on our findings, it is not possible to make a valid comparison of outcomes between professions and specific performance concerns.

Limitations

Our study is, to our knowledge, the first to give a systematic overview of the scientific literature regarding outcomes of remediation and rehabilitation programmes. It has, however, some limitations. For our review, we only included research articles published in the scientific literature. Outcomes of programmes could be reported in the grey litera-

ture as well, for example, in (annual) reports from specific programmes. The quality and duration of follow-up between studies differed, and some studies reported only on outcomes for programme completers whereas other studies reported on all participants. Caution is therefore needed when interpreting outcomes of different studies. Furthermore, it could be that potential participants whose chances for recovery are judged as slim, for example, due to severity of problems or illness, do not enter the programme, resulting in selection bias and more positive outcomes overall. Healthcare professionals might also avoid seeking help, which could mean that the group of potential participants is actually higher.[62]

The nature of programmes in our studies differed. Participants of PHPs for example, are often forwarded to the programme by licence boards, colleagues or family members, whereas participants of assessment programmes are often randomly selected and the Norwegian programme aimed at reducing burn-out is a preventive programme (though most participants show signs of burn-out[47]) based on voluntary self-referral. Furthermore, the extent of support differs across programmes. Outcomes could be influenced by programme characteristics and contextual factors, and differ for specific subgroups of participants, as has been previously suggested.[31] Finally, previous studies show that participants in PHPs often have a dual diagnosis (eg, SUDs and mental problems), and causes of performance concerns often overlap.[3 27 54 63] Even though most studies reported outcomes on only SUD, it could be that other performance concerns were addressed in the programme too (though not reported in the study). Our reported categories of concerns show similarities to how regulatory authorities structure their work regarding performance concerns of professionals, which usually channel professionals in different management pathways for concerns related to health, competence and conduct.[43] Since there is often an overlap of performance concerns, professionals might be part of more than one pathway. In our review, we categorised our findings according to the performance concerns for which studies reported outcomes.

Implications for practice

The positive outcomes of PHPs suggest that it is worthy for countries to invest in programmes addressing performance concerns. We previously studied the Dutch experience and concluded that in the Netherlands only a SUD programme for physicians has been present since 2005. Additionally initiatives for support for poorly performing dentists and pharmacists have been developed in recent years.[52] No outcome results have been published though. Many European countries might benefit from investing in similar programmes, as some have already done.[9] However, introduction of these programmes should be done carefully. PHPs in North America have recently been the topic of debate with critics arguing that some doctors are unnecessarily coerced into treatment and that programmes are punitive and restrict doctors to challenge diagnoses

they disagree with.[64] Although the objective of the current review did not include looking into these concerns, they should be taken seriously and as with any intervention, feedback of its users is of importance to further develop and improve the programme.

Conclusion

The literature is dominated by outcomes for physicians in North American programmes. Rehabilitation outcomes for SUDs are positive, whereas remediation outcomes for dyscompetence vary and other performance concerns are reported on scarcely. Based on our findings and the limited number of studies we cannot make valid comparisons in outcomes between professions and specific performance concerns. We call for other programmes to report outcomes for different professions and concerns. Because of the positive outcomes of PHPs, other countries should consider introducing similar programmes to support healthcare professionals getting back on track.

REFERENCES

1. van den Goor MM, Wagner CC, Lombarts KM. Poor Physician Performance in the Netherlands: characteristics, causes, and prevalence. J Patient Saf 2015.
2. Weenink JW, Westert GP, Schoonhoven L, et al. Am I my brother's keeper? A survey of 10 healthcare professions in the Netherlands about experiences with impaired and incompetent colleagues. BMJ Qual Saf 2015;24:56–64.
3. Leape LL, Fromson JA. Problem doctors: is there a system-level solution? Ann Intern Med 2006;144:107–15.
4. Hughes TL, Smith L, Howard MJ. Florida's intervention project for nurses: a description of recovering Nurses' Reentry to practice. J Addict Nurs 1998;10:63–9.
5. Centrella M. Physician addiction and impairment--current thinking: a review. J Addict Dis 1994;13:91–105.
6. DuPont RL, McLellan AT, Carr G, et al. How are addicted physicians treated? A national survey of Physician Health Programs. J Subst Abuse Treat 2009;37:1–7.
7. Marshall EJ. Doctors' health and fitness to practise: treating addicted doctors. Occup Med 2008;58:334–40.
8. DuPont RL, McLellan AT, White WL, et al. Setting the standard for recovery: physicians' Health Programs. J Subst Abuse Treat 2009;36:159–71.
9. Braquehais MD, Tresidder A, DuPont RL. Service provision to physicians with mental health and addiction problems. Curr Opin Psychiatry 2015;28:324–9.
10. Finucane PM, Bourgeois-Law GA, Ineson SL, et al. A comparison of performance assessment programs for medical practitioners in Canada, Australia, New Zealand, and the United kingdom. Acad Med 2003;78:837–43.
11. Humphrey C. Assessment and remediation for physicians with suspected performance problems: an international survey. J Contin Educ Health Prof 2010;30:26–36.
12. Tyssen R. Health problems and the use of health services among physicians: a review article with particular emphasis on norwegian studies. Ind Health 2007;45:599–610.
13. Ouzzani M, Hammady H, Fedorowicz Z, et al. Rayyan-a web and mobile app for systematic reviews. Syst Rev 2016;5:210.
14. Wells GA, Shea B, O'Connell D, et al. The Newcastle-Ottawa Scale (NOS) for assessing the quality of nonrandomised studies in meta-analyses. Ottawa (ON): Ottawa Health Research Institute, 1999.
15. Moher D, Liberati A, Tetzlaff J, et al. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. BMJ 2009;339:b2535.
16. McLellan AT, Skipper GS, Campbell M, et al. Five year outcomes in a cohort study of physicians treated for substance use disorders in the United States. BMJ 20082038;337:a2038.
17. Ikeda R, Pelton C. Diversion programs for impaired physicians. West J Med 1990;152:617–21.
18. Finke L, Williams J, Stanley R. Nurses referred to a peer assistance program for alcohol and drug problems. Arch Psychiatr Nurs 1996;10:319–24.
19. Clark C, Farnsworth J. Program for recovering nurses: an evaluation. Medsurg Nurs 2006;15:223–30.
20. Brewster JM, Kaufmann IM, Hutchison S, et al. Characteristics and outcomes of doctors in a substance dependence monitoring programme in Canada: prospective descriptive study. BMJ 20082098;337:a2098.

21. Galanter M, Talbott D, Gallegos K, et al. Combined Alcoholics Anonymous and professional care for addicted physicians. Am J Psychiatry 1990;147:64–8.
22. Gallegos KV, Lubin BH, Bowers C, et al. Relapse and recovery: five to ten year follow-up study of chemically dependent physicians--the Georgia experience. Md Med J 1992;41:315–9.
23. Merlo LJ, Greene WM, Pomm R. Mandatory naltrexone treatment prevents relapse among opiate-dependent anesthesiologists returning to practice. J Addict Med 2011;5:279–83.
24. Haack MR, Yocom CJ. State policies and nurses with substance use disorders. J Nurs Scholarsh 2002;34:89–94.
25. Fogger SA, McGuinness T. Alabama's nurse monitoring programs: the nurse's experience of being monitored. J Addict Nurs 2009;20:142–9.
26. Reading EG. Nine years experience with chemically dependent physicians: the New Jersey experience. Md Med J 1992;41:325–9.
27. Roth A, Hogan I, Farren C. Naltrexone plus group therapy for the treatment of opiate-abusing health-care professionals. J Subst Abuse Treat 1997;14:19–22.
28. Paris RT, Canavan DI. Physician substance abuse impairment: anesthesiologists vs. other specialties. J Addict Dis 1999;18:1–7.
29. Ganley OH, Pendergast WJ, Wilkerson MW, et al. Outcome study of substance impaired physicians and physician assistants under contract with North Carolina Physicians Health Program for the period 1995-2000. J Addict Dis 2005;24:1–12.
30. Albuquerque J, Deshauer D, Fergusson D, et al. Recurrence rates in Ontario physicians monitored for Major depression and bipolar disorder. Can J Psychiatry 2009;54:777–82.
31. Knight JR, Sanchez LT, Sherritt L, et al. Outcomes of a monitoring program for physicians with mental and behavioral health problems. J Psychiatr Pract 2007;13:25–32.
32. Warhaft NJ. The victorian doctors Health Program: the first 3 years. Med J Aust 2004;181:376–9.
33. Wile C, Frei M, Jenkins K. Doctors and medical students case managed by an australian doctors Health Program: characteristics and outcomes. Australas Psychiatry 2011;19:202–5.
34. Bohigian GM, Croughan JL, Sanders K, et al. Substance abuse and dependence in physicians: the Missouri Physicians' Health Program. South Med J 1996;89:1078–80.
35. Bohigian GM, Bondurant R, Croughan J. The impaired and disruptive physician: the Missouri Physicians' Health Program--an update (1995-2002). J Addict Dis 2005;24:13–23.
36. Brooks SK, Gerada C, Chalder T. Doctors and dentists with mental ill health and addictions: outcomes of treatment from the Practitioner Health Programme. J Ment Health 2013;22:237–45.
37. McAuley RG, Paul WM, Morrison GH, et al. Five-year results of the peer assessment program of the College of Physicians and Surgeons of Ontario. CMAJ 1990;143:1193–9.
38. Norton PG, Dunn EV, Beckett R, et al. Long-term follow-up in the Peer Assessment Program for nonspecialist physicians in Ontario, Canada. Jt Comm J Qual Improv 1998;24:334–41.
39. Turnbull J, Cunnington J, Unsal A, et al. Competence and cognitive difficulty in physicians: a follow-up study. Acad Med 2006;81:915–8.
40. Hanna E, Premi J, Turnbull J. Results of remedial continuing medical education in dyscompetent physicians. Acad Med 2000;75:174–6.
41. Goulet F, Jacques A, Gagnon R. An innovative approach to remedial continuing medical education, 1992-2002. Acad Med 2005;80:533–40.
42. Goulet F, Gagnon R, Gingras ME. Influence of remedial professional development programs for poorly performing physicians. J Contin Educ Health Prof 2007;27:42–8.
43. Lillis S, Takai N, Francis S. Long-term outcomes of a remedial education program for doctors with clinical performance deficits. J Contin Educ Health Prof 2014;34:96–101.

44. Norman KE, O'Donovan MJ, Campbell F. Impact of college-administered quality practice assessments: a longitudinal evaluation of repeat peer assessments of continuing competence in physiotherapists. Physiother Can 2015;67:174–83.
45. Blais R, Safianyk C, Magnan A, et al. Physician, heal thyself: survey of users of the Quebec Physicians Health Program. Can Fam Physician 2010;56:e383–9.
46. Isaksson Ro KE, Tyssen R, Hoffart A, et al. A three-year cohort study of the relationships between coping, job stress and burnout after a counselling intervention for help-seeking physicians. BMC Public Health 2010;10:213.
47. Isaksson Rø KE, Gude T, Tyssen R, et al. A self-referral preventive intervention for burnout among norwegian nurses: one-year follow-up study. Patient Educ Couns 2010;78:191–7.
48. Brooks E, Gendel MH, Early SR, et al. Physician boundary violations in a physician's health program: a 19-year review. J Am Acad Psychiatry Law 2012;40:59–66.
49. Bal BS. An introduction to medical malpractice in the United States. Clin Orthop Relat Res 2009;467:339–47.
50. Kelly JF, White WL, Skipper GE, DuPont RL. The Physician Health Program: A Replicable Model of Sustained Recovery Management. In: Kelly JF, White WL, eds. Addiction Recovery Management: theory, Research and Practice. Totowa, NJ: humana Press, 2011:281–99.
51. Brooks E, Gendel MH, Gundersen DC, et al. Physician health programmes and malpractice claims: reducing risk through monitoring. Occup Med 2013;63:274–80.
52. Weenink JW, Kool RB, Hesselink G, et al. Prevention of and dealing with Poor Performance: an Interview Study about how professional associations Aim to support Healthcare Professionals. Int J Qual Health Care. 2017 Oct 1;29(6):838-844.
53. Stahler GJ, Mennis J, DuCette JP. Residential and outpatient treatment completion for substance use disorders in the U.S.: moderation analysis by demographics and drug of choice. Addict Behav 2016;58:129–35.
54. Nelson HD, Matthews AM, Girard DE, et al. Substance-impaired physicians probationary and voluntary treatment programs compared. West J Med 1996;165(1-2):31–6.
55. Hauer KE, Ciccone A, Henzel TR, et al. Remediation of the deficiencies of physicians across the continuum from medical school to practice: a thematic review of the literature. Acad Med 2009;84:1822–32.
56. Papadakis MA, Paauw DS, Hafferty FW, et al. Perspective: the education community must develop best practices informed by evidence-based research to remediate lapses of professionalism. Acad Med 2012;87:1694–8.
57. Guerrasio J, Aagaard EM. Methods and outcomes for the remediation of clinical reasoning. J Gen Intern Med 2014;29:1607–14.
58. Kalet A, Guerrasio J, Chou CL. Twelve tips for developing and maintaining a remediation program in medical education. Med Teach 2016;38:787–92.
59. Regan L, Hexom B, Nazario S, et al. Remediation methods for milestones related to Interpersonal and Communication skills and professionalism. J Grad Med Educ 2016;8:18–23.
60. Boileau E, St-Onge C, Audétat MC. Is there a way for clinical teachers to assist struggling learners? A synthetic review of the literature. Adv Med Educ Pract 2017;8:89–97.
61. Braquehais MD, Valero S, Matalí JL, et al. Promoting voluntary help-seeking among doctors with mental disorders. Int J Occup Med Environ Health 2014;27:435–43.
62. Tjia J, Givens JL, Shea JA. Factors associated with undertreatment of medical student depression. J Am Coll Health 2005;53:219–24.

63. Domino KB, Hornbein TF, Polissar NL, et al. Risk factors for relapse in health care professionals with substance use disorders. JAMA 2005;293:1453–60.
64. Lenzer J. Physician health programs under fire. BMJ 2016;353:i3568.

Appendix 1. Search strategies

Medline (1302 hits)

((Physician* or doctor* or professional* or clinician* or dentist* or nurse* or psychologist* or psychotherapist* or midwife or midwives or pharmacist* or physiotherapist* or practitioner*) adj2 ((support or assistance or counselling or counseling or recovery or recovering or treatment or therapy or monitoring or remediation or remedial) adj2 (program* or intervention*))).mp. or ((Physician* or doctor* or professional* or clinician* or dentist* or nurse* or psychologist* or psychotherapist* or midwife or midwives or pharmacist* or physiotherapist* or practitioner*) adj2 health adj1 (program* or intervention*)).mp. or (exp Professional Impairment/ and (program* or intervention*).mp.) or (remedial-professional-development-program* or remedial-continuing-medical-education or remedial-education-program* or villa-sana or PAIME or PAIMM).mp.

Embase (1077 hits)

((Physician* or doctor* or professional* or clinician* or dentist* or nurse* or psychologist* or psychotherapist* or midwife or midwives or pharmacist* or physiotherapist* or practitioner*) adj2 ((support or assistance or counselling or counseling or recovery or recovering or treatment or therapy or monitoring or remediation or remedial) adj2 (program* or intervention*))).mp. or ((Physician* or doctor* or professional* or clinician* or dentist* or nurse* or psychologist* or psychotherapist* or midwife or midwives or pharmacist* or physiotherapist* or practitioner*) adj2 health adj1 (program* or intervention*)).mp. or (professional-impairment or physician-impairment).kw. or (remedial-professional-development-program* or remedial-continuing-medical-education or remedial-education-program* or villa-sana or PAIME or PAIMM).mp.

PsycINFO (883 hits)

((Physician* or doctor* or professional* or clinician* or dentist* or nurse* or psychologist* or psychotherapist* or midwife or midwives or pharmacist* or physiotherapist* or practitioner*) adj2 ((support or assistance or counselling or counseling or recovery or recovering or treatment or therapy or monitoring or remediation or remedial) adj2 (program* or intervention*))).mp. or ((Physician* or doctor* or professional* or clinician* or dentist* or nurse* or psychologist* or psychotherapist* or midwife or midwives or pharmacist* or physiotherapist* or practitioner*) adj2 health adj1 (program* or intervention*)).mp. or (exp Impaired Professionals/ and (program* or intervention*).mp.) or (remedial-professional-development-program* or remedial-continuing-medical-education or remedial-education-program* or villa-sana or PAIME or PAIMM).mp.

CINAHL (1481 hits)

((TI Physician* or TI doctor* or TI professional* or TI clinician* or TI dentist* or TI nurse* or TI psychologist* or TI psychotherapist* or TI midwife or TI midwives or TI pharmacist* or TI physiotherapist* or TI practitioner*or AB physician* or AB doctor* or AB professional* or AB clinician* or AB dentist* or AB nurse* or AB psychologist* or AB psychotherapist* or AB midwife or AB midwives or AB pharmacist* or AB physiotherapist* or AB practitioner*) N2 ((TI support or TI assistance or TI counselling or counseling or TI recovery or TI recovering or TI treatment or TI therapy or TI monitoring or TI remediation or TI remedial or AB support or AB assistance or AB counselling or AB recovery or AB recovering or AB treatment or AB therapy or AB monitoring or AB remediation or AB remedial) N2 (TI program* or TI intervention* or AB program* or AB intervention*))) or ((TI Physician* or TI doctor* or TI professional* or TI clinician* or TI dentist* or TI nurse* or TI psychologist* or TI psychotherapist* or TI midwife or TI midwives or TI pharmacist* or TI physiotherapist* or TI practitioner*or AB physician* or AB doctor* or AB professional* or AB clinician* or AB dentist* or AB nurse* or AB psychologist* or AB psychotherapist* or AB midwife or AB midwives or AB pharmacist* or AB physiotherapist* or AB practitioner*) N2 ((TI health or AB health) N1 (TI program* or TI intervention* or AB program* or AB intervention*))) or ((MM "Impairment, Health Professional") AND (TI program* OR AB program* OR TI intervention*

OR AB intervention*)) or (TI remedial-professional-development-program* or TI remedial-continuing-medical-education or TI remedial-education-program* or TI villa-sana or TI PAIME or TI PAIMM or AB remedial-professional-development-program* or AB remedial-continuing-medical-education or AB remedial-education-program* or AB villa-sana or AB PAIME or AB PAIMM)

Appendix 2. Data of included studies on health problems

1. Substance use disorders (SUD)					
Study	**Program**	**Country**	**Enrollment period**	**Study population**	**Referral source**
Brewster 2008	Ontario PHP	Canada	1995-2007	100 doctors	No data
Clark 2005	Program for Recovering Nurses (PRN)	United States	1985-2000	207 nurses	Employer 50% (104), Board of Pharmacy 14% (29), coworkers 6% (12), treatment provider 6% (12), self-referral 14% (30)
Domino 2005	Washington PHP	United States	1991-2001	292 healthcare professionals: 239 physicians, 14 vetenarians, 3 dentists, 32 physicians assistants and 4 pharmacists (or podiatrists, unclear)	No data
Finke 1996	Indiana State Nurses' Association peer assistance program	United States	1984-1992	221 registered nurses referred to the program	Employer 33%, self-referral 28%, physician or counsellor 13%, friend or peer 8%, spouse 1%
Fogger 2009	Alabama disciplinary program AND alternative program (VDAP)	United States	Unknown	173 nurses currently enrolled in a probationary program (45) or alternative program (128)	No data (the initial contact with the BON may have been through supervisors or peers reporting of the nurse's impairment or the nurse volunteering once they have entered treatment)

Participation (voluntary/ mandatory/both)	Measures	Data source	Follow-up	Main outcomes
No data (though two thirds of participants enrolled to satisfy a requirement of the CPSO)	Program completion, relapse during monitoring	Questionnaire	5 years	71% of participants had no known relapse during monitoring; an additional 14% went on to complete the program after some form of relapse. In total, 85% of the doctors successfully completed the program.
Both voluntary and mandatory	Program completion, working in nursing (program completers)	Administrative data	Average 45 months (SD=35.6m)	Of the 207 records evaluated, 55 were still enrolled. Of the remaining records, 70 nurses completed the PRN successfully (47.6%) while 48 nurses quit the program and voluntarily surrendered their licenses, 29 were disciplined formally and outcome data were missing for 5 nurses. 63 out of 70 (90%) who completed the program were working actively in nursing.
No data	Relapse rates, return to practice (for relapsed and non-relapsed participants)	Administrative data	58% 0-1y, 28% 2-5y, 14% >5y	25% had at least 1 relapse; 5% had exactly 2 relapses and 3% had 3 or more relapses. Of individuals who had a relapse and were followed up ≥5 years (n=51), 61% successfully returned to the practice of medicine. All individuals followed up ≥5 years (n = 110) without a relapse successfully returned to the practice of medicine.
No data	Program completion, employment status during contract	Administrative data	No data	54% graduated showing good recovery and 10% completed with some elements of recovery.
Voluntary (alternative program is voluntary - though if an impaired nurse does not enter into monitoring, she/he must surrender their license, disciplinary program is mandated)	Relapse rate, employment status	Questionnaire	No data (time in the program ranged from the newly identified to the almost complete but not yet discharged.)	90% of VDAP and 96% of Probationary Program participants were currently employed. 94% of the nurses reported no relapses since they entered monitoring.

Appendix 2. Data of included studies on health problems (continued)

1. Substance use disorders (SUD)					
Study	**Program**	**Country**	**Enrollment period**	**Study population**	**Referral source**
Galanter 1990	Georgia Impaired Physicians Program (IPP)	United States	Unknown	100 physicians who were succesfully treated in the IPP	No data
Galanter 2007	New York State Committee on Physicians' Health	United States	2003-2004	104 physician program participants whose monitoring and treatment had ended.	No data
Gallegos 1992	Georgia Impaired Physicians Program (IPP)	United States	1982-1987	100 physicians	No data
Ganley 2005	North Carolina PHP	United States	1995-2000	233 physicians and 34 physician assistants	No data (referrals come from a variety of sources including the NCMB, hospitals, colleagues, family members, and the practitioners themselves)

	Participation (voluntary/ mandatory/both)	Measures	Data source	Follow-up	Main outcomes
	No data	Relapse rates, currently practicing medicine	Questionnaire	Average 33.4 months (SD ±32.9m)	14% indicated that they had used alcohol or drugs since entering the program. Of 66 participants who had been in the program ≥1 year, 64 reported at least a year's sobriety. All but five were practicing medicine (95%), and all but eight were treating patients (92%).
	No data	Relapse rates	Administrative data	Average 41.25 months (SD =27.28m)	38 participants (36.5%) relapsed over the course of program participation
	No data	Relapse rates, currently practicing medicine	Administrative data	5-10 years	77.8% with documented outcomes (n=99) remained abstinence since initiation. Of 76 physicians that remained abstinence and were alive, 73 were currently practicing medicine (96%) and 3 had retired. Of 21 physicians that relapsed and were alive, 18 were currently practicing medicine (85.7%) whereas 2 had retired.
	No data	Good outcome without complications (either program completerion or 1y incident free), Good outcome with complication (completion with relapse)	Administrative data	No specific data (at least 1y in their 3-5y contract)	65% physicians and 50% PA's had a good outcome without complications, and 26% of physicians and 9% of PA's had good outcome with complications (either completed their contract or 1y incident-free)

Appendix 2. Data of included studies on health problems (continued)

1. Substance use disorders (SUD)					
Study	**Program**	**Country**	**Enrollment period**	**Study population**	**Referral source**
Haack 2002	Alternative program of the SBON	United States	1993-1995	119 nurses in the alternative treatment program vs. 100 disciplined nurses	Regulatory board
Hughes 1998	Florida's Intervention Project	United States	Unknown	374 nurses (out of 681 invited nurses) that currently participated in the program	No data
Ikeda 1990	California Diversion Program	United States	1980-1990	371 physicians	Medical Board 50%, self-referred 23%, hospital 11%, treatment facility 6%, physician training programs 4%, colleague 2%, other 4%

Participation (voluntary/ mandatory/both)	Measures	Data source	Follow-up	Main outcomes
Voluntary (nurses entered the alternative program voluntarily instead of having disciplinary action against a license to practice nursing, disciplined program is mandated)	Relapse rates, employed in nursing (for alternative vs. disciplined nurses) at 2 and at 6 months	Administrative data	6 months	For the discipline group 10 of 65 (15.4%) and for the alternative group 11 of 82 (13.4%) reported episodic or continuous use of alcohol or other drugs. At 2 months, 43% of participants in the discipline group and 75% of those in the alternative group reported employment in nursing. At the conclusion of the study, a statistically significant greater percentage of nurses in the alternative group (74%) than in the disciplinary group (52%) were employed (p=<.01).More participants in the alternative programs (76%) than in the discipline programs (49%) were in the workforce at the time of one or both assessments.
Voluntary	Relapse rates, currently employed in nursing	Questionnaire	No data	Fewer than 25% of the participants have experienced a relapse, and 80.8% were currently employed in a nursing position
Voluntary (the physician in question may be given a choice ofentering diversion or continuing with formal investigation and disciplinary action)	Program completion	Administrative data	No specific data (to successfully complete the program a physician must be in diversion and free of alcohol and drugs for more than two years.	Of physicians who started diversion, 72% completed it successfully.

Appendix 2. Data of included studies on health problems (continued)

1. Substance use disorders (SUD)					
Study	**Program**	**Country**	**Enrollment period**	**Study population**	**Referral source**
McLellan 2008	Physician Health Programs (PHPs)	United States	1995-2001	904 physicians admitted to one of the 16 programmes	55% were formally mandated to enter the PHP by a licensing board, hospital, insurer, or other agency. 45% were informally mandated by families, colleagues, employers, or some combination
Merlo 2011	Professionals monitoring program	United States	2005-unknown	18 anesthesiologists and 4 anesthesiology residents with opiate use disorders (two groups: 11 treated w/ naltrexone vs. 11 without)	No data
Nelson 1996	Oregon Probationary program AND Diversion Program for Health Professionals	United States	1990-1992	97 physicians	Self-referral rates were similar between the groups. Immediate contacts (colleagues, patients, friends, family) were more common for the diversion program (39% versus 15%, P < .05), whereas third parties (insurer, police, review boards) were more common for the Oregon board (73% versus 46%, P < .05).

	Participation (voluntary/ mandatory/both)	Measures	Data source	Follow-up	Main outcomes
	Both voluntary and mandatory (though with implicit threat of formal action)	Program completion, continued alcohol and drug misuse during monitoring period, and occupational status at five years.	Administrative data	5 years	19.3% (155 of 802) failed the program. Of 647 (80.7%) who completed treatment and resumed practice under supervision and monitoring, in 19% (126) alcohol or drug misuse was detected over 5y by urine testing; 33 (26%) of these had a repeat positive test result. At five year follow-up, 631 (78.7%) physicians were licensed and working, 87 (10.8%) had their licences revoked, 28 (3.5%) had retired, 30 (3.7%) had died, and 26 (3.2%) had unknown status.
	No data for PRN participation (though the naltrexone treatment was mandated)	Relapse rates, return to practice (for naltrexone vs non-naltrexone group)	Administrative data	Average 3.36y (SD=1.57) and 2.5y for relapse free participants in both groups	Eight out of 11 anaesthesiologists (72.7%) who did not take naltrexone experienced a relapse on opiates, whereas 1 out of 11 (9.1%) experienced a relapse on opiates after taking naltrexone. Only 1 of the 11 (9.1%) who did not take naltrexone successfully returned to the practice of anaesthesiology, whereas 9 of the 11 (81.8%) who took naltrexone have returned to the practice of anaesthesiology without a relapse
	Voluntary (diversion program, board program is mandatory)	Relapse rates for the two programs	Administrative data	Average 18.3 months (diversion) and 27.3 months (board program) ($P < .05$)	Relapse rates did not differ significantly for the two groups: 22.0% for the Oregon board group and 14.3% for the diversion program group.

Appendix 2. Data of included studies on health problems (continued)

1. Substance use disorders (SUD)					
Study	**Program**	**Country**	**Enrollment period**	**Study population**	**Referral source**
Paris 1999	New Jersey's PHP	United States	1982-1994	32 anesthesiologists were compared with 36 randomized physician controls	The majority of the anesthesiologists were referred by their department chairmen
Reading 1992	New Jersey's PHP	United States	1982-1990	301 physicians with chemical dependency intakes	No specific data (though in general colleagues (>50%), self-referral (20%), family (15%), and very few by the State Board)
Roth 1997	Special treatment program	United States	Unknown (5 year period)	17 nurses, 2 nurse-anesthetists, and 1 was a pharmacist	Referrals came from the Connecticut State Boards of Nursing and Pharmacy, and from Nurses for Nurses, a self-help group for nurses dealing with addictions
Roy 1994	Monitoring and advocacy program	United States	1989-unknown	25 physicians, 6 dentists, 2 pharmacists, 3 medical students and 1 veterinarian	No specific data (though 89% was known to the IPC and 11% joined for reasons of personal therapeutic gain or advocacy)

2. Mental illness					
Study	**Program**	**Country**	**Measurement period**	**Study population**	**Referral source**
Albuquerque 2009	Ontario PHP	Canada	2001-2007	50 physicians with bipolar disorder or unipolar depression	Mandated by institution or regulatory agency 100%

Participation (voluntary/ mandatory/both)	Measures	Data source	Follow-up	Main outcomes
No data	Relapse rates, sustained recovery rates longer than two years	Administrative data	Average 7.8y (anesth) and 7.2y (controls)	The relapse rate among anaesthesiologists was 40.6% and for controls were 44.6%. Sustained recovery rates longer than two years were 81% and 86%, respectively.
No data	Relapse rates	Administrative data & questionnaire	1-9 years	73.8% of physicians had no known relapses and 12.6% had one relapse. Overall, 86.4% of physicians can be considered successfully rehabilitated with no relapses or only one relapse
Mandatory (2 voluntary yet no outcomes reported)	Relapse rates, employment status during the program	Administrative data	Average 1.9 years	Of the 18 referred patients, 12 had no relapses (60%), and 5 had only one relapse, followed by long-term sobriety. 94% of referred clients had long term abstinence, and 66% were working in their profession during the program.
No data	Relapse rates, Employment status (working in profession)	Administrative data	Average of 24 months	Of participants, 30 (81%) had no relapse and 7 (19%) had a brief or sustained relapse. 35 participants were currently working in the profession (94.6%), 1 was in treatment and 1 had repeatedly relapsed and was no longer in practice.

Participation (voluntary/ mandatory/both)	Measures	Data source	Follow-up	Main outcomes
Mandatory (must demonstrate recovery)	Remergence of symptoms, stopping work due to symptoms	Administrative data	Median 25 months	52% (26 of 50 physicians) had some degree of recurrence during a mean observation period of 25 months. 36% (18 of 50 physicians) had stopped work owing to recurrence.

Appendix 2. Data of included studies on health problems (continued)

3. A combination of SUD, mental illness and other health problems					
Study	**Program**	**Country**	**Measurement period**	**Study population**	**Referral source**
Bohigian 1996	Missouri PHP	United States	1990-1994	146 physicians with SUD or psychiatric referall currently enrolled in the program	Self-referral 18%, colleague 16%, Board of Healing Arts 15%, hospital 15%, treatment center 11%, other programs 6%, treating physician 5%, other 14%
Bohigian 2005	Missouri PHP	United States	1995-2002	197 physicians with SUD or psychiatric referall currently enrolled in the program	Hospital 27%, self-referral 23%, colleague 14%, other programs 8%, Board of Healing Arts 7%, treatment centers 7%, other 15%
Brooks 2013	The Practitioner Health Programme	United Kingdom	no data	190 doctors and 10 dentists . 103 patients (51.5%) were diagnosed with mental health problems only; 36 (18%) were diagnosed with addiction problems only; 2 (1%) were diagnosed with a physical health problem only, and 52 (26%) were diagnosed with co-morbid disorders.	Self-referall

Participation (voluntary/ mandatory/both)	Measures	Data source	Follow-up	Main outcomes
Both voluntary and mandatory	Success in the program as defined as adherence to terms of agreement	Administrative data	Up to 5 years	94% were stable, recovering and working well within the program
Both voluntary and mandatory	Success in the program as defined as adherence to terms of agreement	Administrative data	Up to 8 years	90% of the physicians was stable and working well within the program
Voluntary	CORE-OM (distress), Work and social adjustment, global improvement.	Questionnaire	26 weeks	At baseline 62.5% scored above the cut-off point for distress and this dropped to 41% at 8-week and 31.46% at 26-week follow-up. Participants did not show significant improvement between baseline and 8-week follow-up for work and social adjustment ($Z = -2.744$, $p = 0.006$). There was, however, a significant improvement between baseline and 26-week scores ($Z = -4.459$, $p = 0.00$). At the 8-week interval, 83.5% of those who filled out the global improvement questionnaire felt at least "a little better", with 38.8% of patients being "much better". At the 26-week interval, 88.4% felt at least "a little better", with most feeling either "very much better" (34.9%) or "much better" (39.5%).

Appendix 2. Data of included studies on health problems (continued)

3. A combination of SUD, mental illness and other health problems					
Study	**Program**	**Country**	**Measurement period**	**Study population**	**Referral source**
Knight 2007	Physician Health Service	United States	1993-2003	132 physicians with SUD contracts vs. 63 physicians with MBH contracts	No data
Warhaft 2004	Victorian Doctors Health Program	Australia	2001-2004	65 doctors entered the case management program (CAMP), 58 for substance abuse and 7 for mental health problems	No data (though some participants were referred by the Medical Practitioners Board)
Wile 2011	Victorian Doctors Health Program	Australia	2001-2008	115 particpants (108 doctors, 7 medical students) with significant SUD (n=90) and/or mental illness (n=25)	Treating doctor 28%, self-referral 19%, Medical Practitioners Board 17%, Employer 14%, Colleague 10%, Family or friend 8%, other 4%

Participation (voluntary/ mandatory/both)	Measures	Data source	Follow-up	Main outcomes
No data	Program completion	Administrative data	2 years for MBH and 3 years for SUD	Of participants on SUD contracts, 75% successfully completed the program, while 8% relapsed and 17% did not complete for other reasons. Of participants on MBH contracts, 74% successfully completed the program, 12% relapsed and 14% did not complete for other reasons.
Both voluntary and mandatory	Satisfactory outcomes (abstinent, recovered, improved), return to practice	Administrative data	No data	Of 65 participants that entered the Case Management, Aftercare and Monitoring Program (CAMP); 57 had outcomes considered satisfactory (87.7%), with 50 returned to work (76.9%).
Both voluntary and mandatory	Reduction in sick leave from medical practice as proxy for outcome	Administrative data	5 years	In the first month, 34% were recorded as being on sick leave. Of those managed by the VDHP for 5 years, only 14% were recorded as being on sick leave; 84% (n=31) had returned to medical work. The remainder had retired, were working in non-medical fields or had died.

Appendix 3. Quality Assessment of included studies using the Newcastle-Ottawa Scale (NOS) [a]

	1. Selection [b]			2. Comparability	3. Outcome		
Study	Representiveness	Selection comparative cohort [c]	Ascertainment of exposure	Comparability of cohorts [c]	Assessment of outcome	Follow-up long enough (average >3y)	Adequacy of follow-up
Albuquerque 2009	*	NA	*	NA	*	- (25m)	*
Blais 2010	*	NA	*	NA	-	- (?)	-
Bohigian 1996	*	NA	*	NA	*	- (<5y)	-
Bohigian 2005	*	NA	*	NA	*	- (<8y)	-
Brewster 2008	*	NA	*	NA	*	* (5y)	*
Brooks 2012	*	-	*	-	*	- (713d)	*
Brooks 2013	*	NA	*	NA	-	- (26w)	-
Clark 2005	*	NA	*	NA	*	* (45m)	*
Domino 2005	*	NA	*	NA	*	- (1y-10y)	-
Finke 1996	*	NA	*	NA	*	- (?)	-
Fogger 2009	*	-	*	-	-	- (?)	-
Galanter 1990	-	NA	*	NA	-	- (33.4m)	-
Galanter 2007	*	NA	*	NA	*	* (41.3m)	*
Gallegos 1992	*	NA	*	NA	*	* (5-10y)	*
Ganley 2005	*	NA	*	NA	*	- (1y-5y)	-
Goulet 2005	*	NA	*	NA	*	- (?)	*
Goulet 2007	*	NA	*	NA	*	- (2y)	*
Haack 2002	-	-	*	-	-	- (6m)	-
Hanna 2000	*	NA	*	NA	*	* (3y)	*
Hughes 1998	-	NA	*	NA	-	- (?)	-
Ikeda 1990	*	NA	*	NA	*	- (>2y)	*
Isaksson-Ro 2009	*	NA	*	NA	-	- (1y)	*
Isaksson-Ro 2010	*	NA	*	NA	-	* (3y)	*
Knight 2007	*	NA	*	NA	*	- (2-3y)	*
Lillis 2014	*	NA	*	NA	*	- (12m)	*
McAuley 1990	*	NA	*	NA	*	- (6-12m)	-
McLellan 2008	*	NA	*	NA	*	* (5y)	*
Merlo 2011	-	*	*	-	*	* (3.4 & 2.5y)	*
Nelson 1996	*	-	*	-	*	- (<3y)	*
Norman 2015	*	NA	-	NA	*	* (>5y)	-
Norton 1998	*	NA	*	NA	*	* (6y)	-
Paris 1999	-	*	*	*	*	* (7.5y)	*
Reading 1992	*	NA	*	NA	*	* (9y)	*

Appendix 3. Quality Assessment of included studies using the Newcastle-Ottawa Scale (NOS) [a (continued)]

	1. Selection [b]			2. Comparability	3. Outcome		
Study	**Representiveness**	**Selection comparative cohort [c]**	**Ascertainment of exposure**	**Comparability of cohorts [c]**	**Assessment of outcome**	**Follow-up long enough (average >3y)**	**Adequacy of follow-up**
Roth 1997	*	NA	*	NA	*	- (1.9y)	*
Roy 1994	*	NA	*	NA	*	- (2y)	*
Turnbull 2006	-	NA	*	NA	*	- (1-3y)	-
Warhaft 2004	*	NA	*	NA	*	- (?)	*
Wile 2011	*	NA	*	NA	*	* (5y)	*

a. For decision rules we refer to Apendix E of Validity and Inter-Rater Reliability Testing of Quality Assessment Instruments (see https://www.ncbi.nlm.nih.gov/books/NBK92291/).

b. Adjustment #1: we excluded the item on demonstration that outcome of interest was not present at the start of the study.

c. Adjustment #2: for selection and comparability items we included any comparison group (not limited to non-exposed cohorts).

Chapter 5

Supporting Healthcare Professionals

An interview study about how professional associations aim to support healthcare professionals in prevention of and dealing with poor performance

As published in the International Journal for Quality in Health Care

Weenink JW, Kool RB, Hesselink G, Bartels RH, Westert GP. Prevention of and dealing with poor performance: an interview study about how professional associations aim to support healthcare professionals. Int J Qual Health Care. 2017 Oct 1;29(6):838-844.

ABSTRACT

Objective To explore how professional associations of nine healthcare professions aim to support professionals to prevent and deal with poor performance.

Design Qualitative interview study.

Setting The Netherlands.

Participants Representatives of professional associations for dentists, general practitioners, medical specialists, midwives, nurses, pharmacists, physiotherapists, psychologists and psychotherapists.

Interventions During nine face-to-face semi-structured interviews we asked how associations aim to support professionals in prevention of and dealing with poor performance. Following the first interview, we monitored new initiatives in support over a 2.5-year period, after which we conducted a second interview. Interviews were analysed using thematic analysis.

Main outcome measures Available policy and support regarding poor performance.

Results Three themes emerged from our data (i.e. elaborating on professional performance, performance insight and dealing with poor performance) for which we identified a total of ten categories of support. Support concerned professional codes, guidelines and codes of conduct, quality registers, individual performance assessment, peer consultation, practice evaluation, helpdesk and expert counselling, a protocol for dealing with poor performance, a place for support and to report poor performance, and internal disciplinary procedures.

Conclusions This study provides an overview of support given to nine healthcare professions by their associations regarding poor performance, and identifies gaps that associations could follow up on, such as clarifying what to do when confronted with a poorly performing colleague, supporting professionals that poorly perform, and developing methods for individual performance assessment to gain performance insight. A next step would be to evaluate the use and effect of different types of support.

INTRODUCTION

It is important that healthcare professionals develop and maintain a high standard of professional performance to ensure high quality care and minimise hazards for patient safety. Professional performance involves all actions or processes in performing work tasks, whilst adhering to the values and behaviours of the profession.[1 2] The changing environment healthcare professionals work in challenges the development and maintenance of professional performance.[3 4] Determining how many healthcare professionals fail to do this is not easy. Previous studies conducted in the Netherlands, the United Kingdom and the United States report prevalence rates of poor performance varying from 0.5-12%, depending on definitions and identification methods used.[5-7] Since poor performance can have serious consequences for patients, the professional concerned, their colleagues, the healthcare organisation and trust in the healthcare system in general, it is important that it is adequately dealt with.[7 8]

Self-regulation is an important aspect of the Dutch healthcare system,[9] and professional associations have an important role in professional governance.[10] They are responsible for re-registration schemes, aim to defend the interests of their members and promote quality in the profession.[10 11] Most healthcare professionals are members of their professional association. Professional associations, therefore, can play an important role in supporting healthcare professionals to prevent and address poor performance, both of themselves and their peers. The objective of this study was to explore how Dutch professional associations aim to support healthcare professionals in prevention of and dealing with poor performance. Additionally, we explored notable differences between healthcare professions.

METHODS

This study was part of a research project about dealing with poor performance of Dutch healthcare professionals conducted between 2012 and 2015. In the project, healthcare professionals were defined as the eight legally regulated healthcare professions in the Netherlands: dentists, midwives, nurses, pharmacists, physicians, physiotherapists, psychologists and psychotherapists. Physicians were divided into general practitioners (GPs) and medical specialists, resulting in a total of nine professions included in this study. Prevalence rates of poor performance for the specific professions are unknown, though one of the project's studies suggests it is an issue across all nine professions.[12]

Study design

We chose to interview association representatives because we expected existing policy and supporting structures were not always documented by professional associations or publicly inaccessible. We did not conduct a survey as this would limit the oppor-

tunity to inquire in depth about policy and structures that representatives might not immediately relate to performance. We deviated from traditional qualitative methods and reporting due to the nature of our research objective, insofar as we quantified our findings to compare available policy and supporting structures between professions. As far as applicable, we reported our study in accordance to the Standards for Reporting Qualitative Research (SRQR).[13] The ethics committee of the Radboud University Medical Center waived the study as it does not fall under the Medical Research Involving Human Subjects Act in the Netherlands.

Data collection

We held face-to-face semi-structured interviews with employees of nine professional associations in January and February 2013. The size of associations varied from a few thousand members (psychotherapists and midwives) to over 15,000 (medical specialists, physiotherapists and nurses). Each association nominated their internal expert on the theme of performance to be an advisor on the project. We contacted each employee by telephone or email and explained the objective of the interview. Upon request of the employee, additional employees participated in the interviews on psychologists (n=3) and dentists (n=2) to adequately represent the associations' policy. Interviewees were asked what support the association offers to professionals to address poor performance. Poor performance was defined as an ongoing situation of irresponsible healthcare delivery that is potentially hazardous to the patient, and in which the professional is not able or willing to recover by him/herself.[14] Interview topics were based on a framework we established for the project on different aspects of dealing with poor performance. Topics concerned support regarding: 1) maintaining performance/preventing poor performance; 2) signalling poor performance; 3) assessment of poor performance; 4) taking measures against poor performance; and 5) remediation to adequate performance. In the following 2.5 years, we monitored new support initiatives using a digital form completed by each employee. The form was administered three times (July 2013, February and October 2014) and was discussed for clarification with one researcher (JWW or RBK).

In June and July 2015, near the end of the research project, we held a second round of interviews with representatives of the nine professional associations to update the overview of support and to discuss initiatives implemented after the first interview round. In preparation of the interview, we sent them the approved transcript of the 2013 interview and an overview of all completed forms. Again, for psychologists (n=3) and dentists (n=2) more than one person was present. All but one interviewee (for medical specialists) were the same person(s) as in the first round of interviews.

All interviews were audio recorded and transcribed verbatim. All interviewees gave their consent prior to the start of each interview and were given the possibility to reflect and comment on the accuracy and validity of the obtained information. Interviews

lasted between 27 and 71 minutes, and were conducted by researchers with a health sciences background, trained in conducting interviews.

Analysis

The data were analysed through thematic analysis, with the unit of analysis being the recorded interviews. In thematic analysis, researchers get familiar with the data by reading and re-reading the data, generate initial codes, search for overarching themes and review these themes.[15] Two researchers (JWW and RBK) analysed all interviews independently. The researchers had a different background to ensure different reflexive positions (JWW=healthcare scientist, RBK=trained medical doctor and economist). First, transcripts were read and relevant words, sentences or paragraphs related to support for poor performance were marked and coded. Coding is the interpretative process in which conceptual labels are given to data.[16] Second, coded text fragments were manually abstracted and codes concerning the same type of support were grouped together into a category. Finally, categories were copied in a separate document and studied for patterns to create overarching themes. JWW and RBK discussed each step and consensus was reached between both researchers. A third researcher (GPW=professor in health services research) was consulted when needed. Categories and themes were formed with unanimous agreement of the researchers.

RESULTS

Ten categories and three overarching themes emerged from the data. Table 1 and Appendix 1 provide an overview of available support for each profession.

Elaborating on professional performance

The first theme concerned support aimed at clarifying or demonstrating professional performance (Box 1). Almost all associations have published a **professional code or profile** that outlines competencies and other requirements for practising in that profession. Additionally, **guidelines or codes of conduct** specifically address both professional behaviour and rules of conduct. For medical specialists, there is a document describing responsibilities regarding (poor) performance of individual specialists, as well as available instruments for taking responsibility. Lastly, a **quality register** is available for dentists, midwives, nurses, physiotherapists and psychotherapists. It gives the opportunity for the professional to show that one meets certain quality criteria set by the profession (e.g. full license to practice, participation in continuing education and development, practicing according to current guidelines).

Box 1. Elaborating on professional performance

"So as a [professional] you have to stick to your own professional code; that is a very important part of your own professional standard" (professional code/profile)

"And yes, in the professional code it says that you have to be transparent, but also vulnerable. And that you have to be able to receive feedback and that you know what to do with that feedback" (professional code/profile)

"We have professional ethics and rules of conduct. These things are present. And poor performance is a part of that; though not only poor performance, it contains other aspects of the profession as well" (guidelines/rules of conduct)

"On top of the professional code, we have a charter on professionalism. It describes what it's like to be a [professional] in today's society, and what the core values of the profession are" (guidelines/rules of conduct)

"So you enrol in the quality register, and with that you say that you love your profession and that you will stick to the norms of the profession" (quality register)

"We have increased the requirements of our quality register. We have requirements on continuing professional development, so for education; and we have requirements when it comes to peer consultation and evaluation" (quality register)

Performance insight

The second theme concerned methods in which performance insight could be gained (Box 2). **Individual performance assessment** through 360-degree feedback (patients, peers, other professionals) is available for general practitioners and medical specialists. Feedback is discussed with an independent mentor and serves as input for personal development plans. Participation has become mandatory for re-registration. For psychologists, there is a self-evaluation questionnaire, the results of which are discussed with peers and, if desired, with a mentor. The associations publish the assessment methods, though healthcare providers and professionals themselves are responsible for conducting the assessment. **Peer consultation/evaluation** is facilitated for dentists, general practitioners, midwives, physiotherapists and psychologists. Peer consultation consists of periodic discussion of professional or personal questions and issues with peers. This could include, but is not limited to, performance. Individual evaluation by peers specifically focuses on performance. During **group or practice evaluation**, which is available for dentists and medical specialists, individual performance might be addressed as well. It focuses on the performance of the practice or team as a whole.

Box 2. Performance insight

"So there is the individual performance assessment, which is a relatively new method. We see that a lot of providers have adopted it. Although you do see differences between providers in how they use these methods" (individual performance assessment)

"That is peer consultation. During these meetings you can address performance issues. That happens. Problems that people run into in their practice. They can discuss these problems during peer consultation" (peer consultation)

"Between [professionals] there is peer evaluation. Peer evaluation could also cover poor performance; that could be an option" (peer consultation)

"We have developed peer consultation because a lot of [professionals] work alone. And it is important to stay in touch with peers; you see things of each other which may prevent that you go down the wrong track when it comes to performance" (peer consultation)

"And then we've got trained inspectors, trained and appointed by us, certified and professionalised. They visit and look around on the basis of the questionnaire the professional filled in; and they have conversations with the [professional] and with other employees to feel and experience how things are done" (group/practice evaluation)

Dealing with poor performance

The final theme concerned support aimed at dealing with a professional's own poor performance, or that of peers (Box 3). Several associations have a **helpdesk or expert counselling** where professionals can discuss their own performance issues or seek advice on what to do when observing poorly performing peers. These helpdesks are not limited to discussing performance issues. For both medical specialists and general practitioners, a **protocol** exists that can be adapted to their own healthcare setting or organisation. The protocol focuses on how to act when performance issues arise and describes which steps to take and when. Both protocols emphasise the importance of first discussing performance doubts with the professional concerned before notifying head of staff. For three professions, there is **a place to report and for support** of poorly performing professionals. For pharmacists and dentists, professionals can report a peer with performance issues. The website for pharmacists offers pharmacists and other healthcare professionals a place to report performance concerns. A committee evaluates if reported concerns justify further investigation, and supports poorly performing pharmacists to achieve an adequate performance level. For dentists, the service is similar, although everyone who is involved as a colleague or (representative of) a patient of the specific dentist can report. Additionally, dentists who have concerns about their own performance can report themselves. The federation of physicians (of which the associations of GPs and medical specialists are members) has a rehabilitation program specifically aimed at addicted physicians. Several associations have an **internal disciplinary procedure**, in which measures against poorly performing professionals can be taken.

Measures impact membership of the association (e.g. temporary suspension, membership revocation) and do not impact license to practice, although some associations choose to inform the Health Care Inspectorate about serious performance concerns.

Box 3. Dealing with poor performance

"We've got specific persons that can be consulted. [Professionals] who experience that they are not well can go there with questions and ask what they can do about their problems" (helpdesk/expert counselling)

"So you get a signal at the helpdesk. And then you'll advice the [professional], for example 'go explore if the specific colleague works according to our professional standard'" (helpdesk/expert counselling)

"We've got the exemplary protocol. It says which measures can be taken. It describes what should be done" (protocol)

"Exactly, that's why we've got [a place to report and for support]. So you prevent that someone's performance goes downhill that much that someone will end up at the Health Care Inspectorate. It is a beautiful thing that you try to help someone perform well again" (place to report or for support)

"We want to be consulted at an early stage so we can intervene, and with conversations and coaching we try to prevent poor performance. So we really want to intervene at an early stage" (place to report or for support)

"You can also kick someone out of the association, but that does not have any consequences for their license to practice. It is more that we say: 'Well, we don't want these kind of professionals in our association, we revoke his/her membership'" (internal disciplinary procedure)

Initiatives since 2013

Since the first interview in 2013, associations issued a series of supporting documents and initiated new services. These mainly focused on defining professional performance and on performance insight. It concerned guidelines for dentists, medical specialists, pharmacists, and psychologists (n=5), performance assessment methods for dentists, general practitioners and psychologists (n=3) and a quality register for psychotherapists (n=1). Two initiatives specifically focused on dealing with poor performance, namely a place to report performance concerns of pharmacists, and the internal disciplinary procedure for dentists.

DISCUSSION

This study identified how professional associations of nine Dutch healthcare professions aim to support their members in prevention of and dealing with poor performance. From our findings, we have identified some important areas that professional associations could follow up on.

Table 1. Support in prevention of and dealing with poor performance by profession

	DT	GP	MW	MS	NU	PHA	PHY	PSL	PST
Elaborating on performance									
Professional code/profile	x	(1)	x	x	x	x	x	x	x
Guidelines/codes of conduct	x	(1)		x	x	x	x	x	
Quality register	x		x		x	(2)	x		x
Performance insight									
Individual performance assessment		x		x				x	
Peer consultation	x	x	x				x	x	(3)
Group/practice evaluation	x			x					
Dealing with poor performance									
Helpdesk/counselling		x	x	x			x	x	
Protocol		x	(4)	x					
Place to report/for support	x	(1)		(1)		x			
Internal disciplinary procedure	x						x	x	

DT=dentists, GP=general practitioners, MW=midwives, MS=medical specialists, NU=nurses, PHA=pharmacists, PHY=physiotherapists, PSL=psychologists, PST=psychotherapists.
1=for physicians in general, 2=quality register is on a practice level, 3=the association has published requirements for peer consultation and evaluation but does not provide these services, 4=no protocol, but journal article addressing what to do when confronted with a poorly performing colleague

Performance insight

Performance assessment can be used for different purposes. It may give professionals insight into gaps in their knowledge, skills and competences, provide direction for continuous professional development, and may also support decisions for remediation for poorly performing professionals.[17] With regards to the first purpose, individual performance assessment is available for GPs, medical specialists and psychologists. These assessment methods consist of standardised questionnaires addressing predefined competencies. Although evidence is limited, previous studies showed that multi-source feedback can positively influence professional performance.[18] Other professions offer peer consultation, which is highly dependent on what issues professionals address themselves and seems especially helpful for professionals actively seeking feedback on their performance. We know, however, that poorly performing professionals often isolate themselves from constructive criticism.[19 20]

The patient is increasingly seen as a safety expert that can identify inconsistencies, errors and harms in care.[21] They can also be used to gain performance insight, and individual assessment methods for GPs and medical specialists already include evaluation questionnaires for patients. Additionally, physician rating sites (PRSs) offer patients a novel way to provide feedback about professional performance.[22] Little information is

available to whether professionals use these websites to gain performance insight and there is debate about the quality of these ratings.[23]

Knowledge on dealing with poorly performing colleagues

In a previous study, almost a third of medical specialists did not feel prepared to deal with impaired or incompetent colleagues.[24] A study we conducted recently confirmed that not all healthcare professionals know what to do when confronted with a poorly performing colleague.[12] The associations for GPs and medical specialists provide a protocol that describes what steps to follow when confronted with a poorly performing colleague, although in our previous study both GPs and medical specialists indicated, like other professions, to have limited knowledge as well. This could mean further attention needs to be given to implementing these protocols. Other associations should clarify what is expected of professionals when confronted with a poorly performing colleague. Since procedures are often adapted to specific working environments, healthcare organisations also have an important role in informing their employees.

Supporting professionals with performance concerns

Internationally, there has been discussion about the balance between punitive measures and a blame-free systems approach when dealing with medical errors.[25] A punitive environment could discourage professionals from addressing and being open about errors. The same could apply for addressing performance issues of themselves and peers. The associations for dentists and pharmacists offer a service on their website through which concerns can be reported and professionals with performance issues receive support. For physicians, there is a service specifically aimed at substance abuse problems, comparable to the physician health programs in the United States.[26] These services are not developed from a punitive perspective, but from a supportive perspective aimed at remediating or rehabilitating the professional. Remediation/rehabilitation not only benefits the professional, but also future patients. Nonetheless, there will always remain cases where punishment may be warranted and/or rehabilitation might not be feasible (e.g. when there are immediate risks for patient safety).

Differences between professions

Differences in available support were observed between professions. For midwives, nurses, pharmacists and psychotherapists, four or less of the ten categories were identified, whereas for dentists, general practitioners and medical specialists seven or more categories were identified. These differences may partly be explained by differences in context and characteristics of professions, such as the degree of personal autonomy. Nurses, for example, are often subordinate to doctors[27] and might get their support through hierarchical structures instead. Additionally, for general practitioners

and medical specialists there have been cases of poorly performing professionals that gained widespread attention in Dutch media and politics.[28] These cases might have motivated these professions to develop support and structures, perhaps feeling pressure from public opinion and healthcare authorities.

Our findings in an international perspective

To the best of our knowledge, this study is the first to provide a countrywide overview of support offered to healthcare professions for prevention of and dealing with poor performance. This makes it hard to put our findings in an international perspective without thorough literature review. Nonetheless, our informal literature review identified several international examples of similar support. These examples include, but are not limited to, a guidance for physicians on raising and acting on concerns about patient safety (including poorly performing colleagues) in the United Kingdom[29]; remediation programs for healthcare professionals with performance concerns in Canada, Norway, Spain, the United Kingdom and the United States[30-34]; and emotional support for physicians in the United Kingdom.[35] Our analysis of the Dutch experience could provide other countries insight in how to organise support for prevention of and dealing with poor performance, though usefulness might be influenced by the degree of self-regulation of healthcare professions and the type of healthcare system in the specific country.

Strengths and weaknesses

The study has several limitations. First, the included associations in this study are not necessarily the only professional association for the profession. For example, more than one association exists for dentists, psychologists and psychotherapists, though the associations in our study concerned the main association with most members. Additionally, there are 32 separate professional organisations for medical specialists. These organisations are members of the professional association for medical specialists and support professionals of specific medical specialties. Second, support can be provided to professionals through sources other than the professional association, for example through the healthcare organisation or regional collaborative networks. The current study therefore does not necessarily give a complete overview of all available support in the Netherlands. Third, poor performance is a broad concept that can vary in its severity and form, and variations in poor performance might necessitate different types of support. Finally, we interviewed one employee of each association that had been put forward by the association. Interviewees' lack of knowledge about the available support within the association or biased answers as a result of coercion may have negatively affected our study outcomes. Since we spoke to employees that were nominated by the association as being the expert on professional performance and we focused on existing policy and support (and not on experiences and opinions), we believe we minimized

these risks. Overall, we believe that our systematic approach in collecting (i.e. sampling association's representative in the field of performance and policy, use of a topic guide, member check, multiple interview rounds) and analysing the data (i.e. independent coding by two researchers) ensures the plausibility, credibility and face validity of findings.

Conclusion

We identified several gaps in support that associations could follow up on, such as clarifying to professionals what to do when they are confronted with a poorly performing colleague, supporting professionals that poorly perform and developing methods for individual performance assessment to gain performance insight. A next step would be to evaluate the use and effectiveness of these initiatives. Furthermore, the study gives insight in the support given to other professions, which could help professional associations to learn from each other in supporting their profession, and gives authorities insight in the ways professions try to ensure and improve self-regulation. Finally, the findings of this study can be used in other countries where professional associations have an important role in professional governance.

REFERENCES

1. van der Leeuw RM. From feedback to action: Physicians' teaching performance in residency training. Amsterdam: University of Amsterdam; 2013. 206 p.
2. Scheepers RA. Physicians' professional performance: An occupational health psychology perspective. Amsterdam: University of Amsterdam; 2016. 290 p.
3. Lewis M. Lifelong learning. Why professionals must have the desire for and the capacity to continue learning throughout life. Health Inf Manag. 1998; 28: 62-66.
4. ten Cate O, Snell L, Carraccio C. Medical competence: the interplay between individual ability and the health care environment. Med Teach. 2010; 32: 669-675.
5. Williams BW. The prevalence and special educational requirements of dyscompetent physicians. J Contin Educ Health Prof. 2006; 26: 173-191.
6. Donaldson LJ, Panesar SS, McAvoy PA, Scarrott DM. Identification of poor performance in a national medical workforce over 11 years: an observational study. BMJ Qual Saf. 2014; 23: 147-152.
7. van den Goor MM, Wagner CC, Lombarts KM. Poor Physician Performance in the Netherlands: Characteristics, Causes, and Prevalence. J Patient Saf. Jul 2015.
8. Ullstrom S, Andreen Sachs M, Hansson J, Ovretveit J, Brommels M. Suffering in silence: a qualitative study of second victims of adverse events. BMJ Qual Saf. 2014; 23: 325-331.
9. Smith PC, Anell A, Busse R, Crivelli L, Healy J, et al. Leadership and governance in seven developed health systems. Health Policy. 2012; 106: 37-49.
10. Hoek H. Private, publieke en professionele invloeden op zorgaanbieders in Nederland. Rotterdam: Erasmus University Rotterdam; 2007.
11. Schäfer W, Kroneman M, Boerma W, van den Berg M, Westert G, et al. The Netherlands: Health system review. Health Systems in Transition. 2010; 12: 1-229.
12. Weenink JW, Westert GP, Schoonhoven L, Wollersheim H, Kool RB. Am I my brother's keeper? A survey of 10 healthcare professions in the Netherlands about experiences with impaired and incompetent colleagues. BMJ Qual Saf. 2015; 24: 56-64.
13. O'Brien BC, Harris IB, Beckman TJ, Reed DA, Cook DA. Standards for reporting qualitative research: a synthesis of recommendations. Acad Med. 2014; 89: 1245-1251.
14. KNMG, Kwaliteitskader medische zorg 'Staan voor kwaliteit'. Utrecht: Koninklijke Nederlandsche Maatschappij tot bevordering der Geneeskunst (KNMG); 2012.
15. Braun V, Clarke V. Using thematic analysis in psychology. Qualitative Research in Psychology. 2006; 3: 77-101.
16. Corbin JM, Strauss A. Grounded theory research: Procedures, canons, and evaluative criteria. Qualitative Sociology. 1990; 13: 3-21.
17. Overeem K, Faber MJ, Arah OA, Elwyn G, Lombarts KM, et al. Doctor performance assessment in daily practise: does it help doctors or not? A systematic review. Med Educ. 2007; 41: 1039-1049.
18. Ferguson J, Wakeling J, Bowie P. Factors influencing the effectiveness of multisource feedback in improving the professional practice of medical doctors: a systematic review. BMC Med Educ. 2014; 14: 76.
19. Holden JD, Cox SJ, Hargreaves S. Avoiding isolation and gaining insight. BMJ Careers. 2012.
20. Cox J, King J, Hutchinson A, McAvoy P. Understanding Doctors' Performance. Oxford, United Kingdom: Radcliffe Medical Press Ltd; 2012.
21. Vincent C, Davis R. Patients and families as safety experts. Cmaj. 2012; 184: 15-16.

22. Lagu T, Hannon NS, Rothberg MB, Lindenauer PK. Patients' evaluations of health care providers in the era of social networking: an analysis of physician-rating websites. J Gen Intern Med. 2010; 25: 942-946.
23. Emmert M, Sander U, Pisch F. Eight questions about physician-rating websites: a systematic review. J Med Internet Res. 2013; 15: e24.
24. DesRoches CM, Rao SR, Fromson JA, Birnbaum RJ, Iezzoni L, et al. Physicians' perceptions, preparedness for reporting, and experiences related to impaired and incompetent colleagues. Jama. 2010; 304: 187-193.
25. Wachter RM. Personal accountability in healthcare: searching for the right balance. BMJ Qual Saf. 2013; 22: 176-180.
26. DuPont RL, McLellan AT, White WL, Merlo LJ, Gold MS. Setting the standard for recovery: Physicians' Health Programs. J Subst Abuse Treat. 2009; 36: 159-171.
27. Currie G, White L. Inter-professional Barriers and Knowledge Brokering in an Organizational Context: The Case of Healthcare. Organization Studies. 2012; 33: 1333-1361.
28. Sheldon T. Case of "dysfunctional" Dutch doctor exposes "culture of silence surrounding mistakes". BMJ. 2009; 339.
29. GMC, Raising and acting on concerns about patient safety. Manchester, United Kingdom: General Medical Council; 2012.
30. Goulet F, Gagnon R, Gingras ME. Influence of remedial professional development programs for poorly performing physicians. J Contin Educ Health Prof. 2007; 27: 42-48.
31. Agullo Hernandez D. [Treatment program in Spain for nurses suffering from depression and drug addiction]. Rev Infirm. 2007; 27.
32. Isaksson Ro KE, Tyssen R, Hoffart A, Sexton H, Aasland OG, et al. A three-year cohort study of the relationships between coping, job stress and burnout after a counselling intervention for help-seeking physicians. BMC Public Health. 2010; 10: 213.
33. Brooks SK, Gerada C, Chalder T. Doctors and dentists with mental ill health and addictions: outcomes of treatment from the Practitioner Health Programme. J Ment Health. 2013; 22: 237-245.
34. Braquehais MD, Tresidder A, DuPont RL. Service provision to physicians with mental health and addiction problems. Curr Opin Psychiatry. 2015; 28: 324-329.
35. HTFA, Final Report of the Pilot of The Doctor Support Service. Hemel Hempstead, United Kingdom: Hewell Taylor Freed and Associates; 2014.

Appendix 1. Overview of support services and documents of professional associations

Supporting documents and services	Profession	Reference (if available)
Professional code or profile		
Professional code for psychologists	Psychologists	Beroepscode voor Psychologen. Nederlands Instituut van Psychologen (NIP). Utrecht: March 2015.
Professional code for psychotherapists	Psychotherapists	Beroepscode voor Psychotherapeuten. Nederlandse Vereniging voor Psychotherapeuten (NVP). Utrecht: June 2007
Professional profile of the physiotherapist	Physiotherapists	Beroepsprofiel Fysiotherapeut. Koninklijk Nederlands Genootschap voor Fysiotherapie (KNGF). Amersfoort: January 2014.
Professional profile for dentists	Dentists	Beroepsprofiel Tandarts algemeen practicus. Koninklijke Nederlandse Maatschappij tot bevordering der Tandheelkunde (KNMT). Utrecht: January 2006
Professional code for nurses and carers	Nurses	Beroepscode van verpleegkundigen en verzorgenden. CGMV vakorganisatie voor christenen, CNV Zorg & Welzijn, FNV Zorg & Welzijn, HCF, NU'91, RMU Sector Gezondheidszorg en Welzijn 'Het Richtsnoer', V&VN. January 2015.
Competency profiles for pharmacists	Pharmacists	*No reference available*
Professional code for midwives	Midwives	KNOV Beroepscode van Verloskundigen. Koninklijke Nederlandse Organisatie van Verloskundigen (KNOV). Utrecht: 12 June 2009
Quality framework for medical specialists	Medical specialists	Kwaliteitskader van medisch specialisten. Orde van medisch specialisten. Utrecht: 2010
Quality framework on medical care	*Physicians* [a]	KNMG Kwaliteitskader medische zorg 'Staan voor kwaliteit'. Koninklijke Nederlandsche Maatschappij tot bevordering der Geneeskunst (KNMG). Utrecht: April 2012.
Guidance documents		
Rules of conduct for dentists	Dentists	Gedragsregels voor tandartsen. Koninklijke Nederlandse Maatschappij tot bevordering der Tandheelkunde (KNMT). Utrecht: 8 December 2000.
Rules of conduct for the physiotherapist	Physiotherapists	Beroepsethiek en Gedragsregels voor de Fysiotherapeut. Koninklijk Nederlands Genootschap voor Fysiotherapie (KNGF). Amersfoort: December 2006.
Guidance on individual professionalism	Nurses	Individuele professionaliteit: handreiking voor verpleegkundigen en verzorgenden. V&VN. Utrecht: June 2012

Appendix 1. Overview of support services and documents of professional associations (continued)

Supporting documents and services	Profession	Reference (if available)
Memorandum about the responsibility of psychologists	Psychologists	Kunnen, mogen en moeten: een begripsverheldering over verantwoordelijkheid, bekwaamheid, en bevoegdheid. Nederlands Instituut van Psychologen (NIP). Utrecht: *date unknown*.
Guidance document about performance and responsibilities for medical specialists	Medical specialists	Optimaal functioneren van medisch specialisten. Orde van medisch specialisten. Utrecht: 12 December 2013.
Charter that describes professionalism of the pharmacist	Pharmacists	Handvest van de apotheker: Grondslag voor het professioneel en ethisch handelen. Koninklijke Nederlandse Maatschappij ter bevordering der Pharmacie (KNMP). Den Haag: 14 May 2013.
Guidance for implementation of quality policy including individual performance for dentists	Dentists	Uw praktijk op orde: een praktische gids voor uw kwaliteitsbeleid. Koninklijke Nederlandse Maatschappij tot bevordering der Tandheelkunde (KNMT). Utrecht: 2015.
Rules of conduct for physicians	*Physicians* [a]	Gedragsregels voor artsen. Koninklijke Nederlandsche Maatschappij tot bevordering der Geneeskunst (KNMG). Utrecht: 2013.
Quality registers		
Central quality register for physiotherapists (CKR)	Physiotherapists	Reglement centraal kwaliteitsregister fysiotherapie. Koninklijk Nederlands Genootschap voor Fysiotherapie (KNGF). Amersfoort: June 2014.
Quality register midwives	Midwives	Website: http://www.kwaliteitsregisterverloskundigen.nl/
Quality register for nurses	Nurses	Website: http://kwaliteitsregister.venvn.nl/
Quality profile for the pharmacy	Pharmacists	Website: http://www.apotheek.nl/in-de-apotheek/het-kwaliteitsprofiel-van-uw-apotheek
Quality register for psychotherapists	Psychotherapists	Website: https://www.psychotherapie.nl/registers/kwaliteitsregister
Quality register for dentists (KRT) [b]	Dentists	Website: https://tandartsregister.nl/
Individual performance assessment		
Individual performance evaluation using 360 feedback for medical specialists (IFMS)	Medical Specialists	*No reference available*
Individual performance evaluation using 360 feedback for general practitioners (IFH)	General practitioners	*No reference available*
Self-evaluation that is discussed with peers and possibly a mentor for psychologists	Psychologists	*No reference available*

Appendix 1. Overview of support services and documents of professional associations (continued)

Supporting documents and services	Profession	Reference (if available)
Peer consultation/evaluation		
Peer consultation and evaluation for psychologists	Psychologists	*No reference available*
Peer consultation for physiotherapists (IOF)	Physiotherapists	*No reference available*
Peer consultation and evaluation for midwives (MIO)	Midwives	*No reference available*
Peer evaluation for general practitioners	General practitioners	*No reference available*
Peer consultation for dentists (IQual)	Dentists	*No reference available*
Rules for (re)registration in the quality register, which includes directions for peer consultation.	Psychotherapists	Besluit vereisten (her)registratie en herintreding Kwaliteitsregister Psychotherapie. Nederlandse Vereniging voor Psychotherapeuten (NVP). Utrecht: January 2015.
Group/practice evaluation		
Practice visitation for dentists	Dentists	*No reference available*
Quality visitation medical specialists	Medical specialists	*No reference available*
Guidance with objective norms for each medical specialty regarding quality visitation	Medical specialists	Waarderingssystematiek voor de kwaliteitsvisitaties. Orde van medisch specialisten. Utrecht: June 2012.
Helpdesk/expert counselling		
Information office with advice for members	Physiotherapists	*No reference available*
Counselling on professional ethics for psychologists	Psychologists	*No reference available*
Helpdesk with possibility to discuss poor performance	Midwives	*No reference available*
Advisory committee that can be consulted by GP alliances when there is a difference in insight about suspected poor performance of a general practitioner.	General practitioners	*No reference available*
GPs that have performance problems can consult other, designated GPs and discuss their problems while maintaining confidentiality	General practitioners	*No reference available*
Case-specific expert groups that might advise authorities when a medical specialist has performed poorly, and provides witnesses at disciplinary hearings	Medical specialists	*No reference available*

Appendix 1. Overview of support services and documents of professional associations (continued)

Supporting documents and services	Profession	Reference (if available)
Protocol		
Regulations for the potentially poorly performing medical specialist	Medical specialists	Model reglement mogelijk disfunctionerend medisch specialist. Orde van medisch specialisten. Utrecht: April 2008.
Protocol for suspicion of poor performance of a general practitioner	General practitioners	Modelprotocol vermeend disfunctioneren huisarts. Landelijke Huisartsen Vereniging (LHV). Utrecht: 2011.
Journal article clarifying what to do when signalling a poorly performing colleague	Midwives	Buisman P, de Jong E. Goed hulpverlenerschap en geode zorg. Tijdschrift voor verloskundigen. KNOV: July 2010.
Place to report/for support		
Support for addicted physicians (ABS)	*Physicians*[a]	Website: https://www.knmg.nl/advies-richtlijnen/abs-artsen/over-abs-artsen.htm
Monitor Dental Care [b]	Dentists	Website: http://www.monitormondzorg.nl
Possibility to report performance issues of pharmacists	Pharmacists	Website: https://www.knmp.nl/professie/professioneel-handelen/meldpunt-functioneren-apotheker/meldpunt-functioneren-openbaar-apotheker
Internal disciplinary procedure		
Committee of supervision & Committee of appeal	Psychologists	Reglement voor het Toezicht. Nederlands Instituut voor Psychologen. Utrecht: 1 January 2009.
Council of Justice Physiotherapy	Physiotherapists	Reglement Tuchtrechtspraak KNGF. Koninklijk Nederlands Genootschap voor Fysiotherapie (KNGF). Amersfoort: January 2012.
Internal disciplinary system for dentists	Dentists	*No reference available*

a. From the federation of physicians (of which the associations for GPs and medical specialists are members)

b. Since its initiation it has become an independent entity (separate from the association)

Chapter 6

Discussion

This chapter discusses the main findings of the thesis in light of recent literature. Additionally, a methodological reflection is given, implications for policy and practice are discussed and thoughts for further research are shared. The chapter concludes with some final remarks.

MAIN FINDINGS

The goal of this thesis was to explore how healthcare professions in the Netherlands address poor performance. Box 1 summarises the main findings of this thesis, structured by the different phases of addressing poor performance.

What follows is a discussion of the main findings of this thesis in light of recent literature. Rather than discussing each finding presented in Box 1 separately, I will discuss five themes I think are key in moving forward when it comes to addressing poor performance adequately and in a timely manner. These five themes are:

- Enhancing performance insight;
- Poor performance: a collective responsibility;
- The impact of being under investigation;
- Peer support: helping a colleague in need;
- Programmes to get back on track.

Box 1. Main findings of this thesis

Prevention of poor performance
- Past and recent initiatives of professional associations have mainly focused on preventing poor performance and less on addressing poor performance of professionals (chapter 5)
- Methods for individual performance assessment are scarce across healthcare professions (chapter 5)

Signalling poor performance
- Dealing with poor performance of healthcare professionals is a prevalent and important issue across healthcare settings in the Netherlands (chapter 2)
- Professionals that are confronted with a poorly performing colleague do not always have knowledge and confidence in dealing with such colleagues, and only a few professional associations have developed protocols for dealing in such situations (chapters 2 and 5)

Assessment of and taking measures against poor performance
- The disciplinary process and measures can have a profound psychological and professional impact on professionals (chapter 3)
- Emotional support for professionals under investigation is currently not structured (chapters 3 and 5)

Remediation/rehabilitation to adequate performance
- Outcomes of North American rehabilitation programmes for physicians with substance use disorders show positive results, though for other performance concerns and professions outcomes vary and evidence is limited (chapter 4)
- Only a few remediation and rehabilitation programmes currently exist in the Netherlands (chapter 5)

ENHANCING PERFORMANCE INSIGHT

Our interview study (chapter 5) on current approaches of professional associations shows that past and recent initiatives have mainly focused on guiding performance and preventing poor performance. This makes sense because it is of importance to all professionals, and it is expected to improve the quality and level of practice of the profession as a whole. At the same time, methods for individual performance assessment among the eight professions are scarce, with the associations for general practitioners, medical specialists and psychologists being the only ones that have structured methods for individual performance assessment. This is worrying, since poorly performing professionals often lack insight into their own performance.[1] One could argue that individual performance evaluation might be organised through other sources than the professional association. Our own research (not included in this thesis) however, shows that one third of professionals report not using any methods to evaluate their own performance.[2] The most reported reason for not using any methods for evaluation is that no methods are available in the professional's organisation. It, therefore, seems essential that other professions develop and implement such methods. In my opinion, professional associations could take a leading role in this so that healthcare organisations do not have to develop these methods individually.

A previous review found limited and variable evidence suggesting multisource feedback (MSF) could influence professional practice.[3] Studies on the perceived effect of 360° feedback, however, show that a vast majority of physicians think it results in better insight in performance and consider the feedback to be accurate.[4, 5] The number of physicians that perceive feedback to be influencing performance is lower, yet still a majority: a questionnaire study on 360° feedback in U.S. surgeons showed that 60% of surgeons and 62% of department heads thought the feedback was beneficial in behaviour change.[4] A recent study in a Dutch hospital reported that 59% of medical specialists and 82% of appraisers thought Appraisal & Assessment (a performance evaluation method) helps in improving individual performance.[5] In the United Kingdom, performance review has become a mandatory element of revalidation and through an annual appraisal, doctors need to collect, report and reflect on information about various aspects of their performance.[6] Every five years, responsible officers in healthcare organisations need to recommend whether a doctor should be revalidated and thus allowed to continue to practise. Experiences of these responsible officers seem to suggest a positive impact on quality of care.[6] The latter is a very formal way of structuring performance evaluation and involves a substantial amount of administrative demand on professionals. Nonetheless, I believe some kind of formal mechanism is necessary to stimulate individual performance evaluation. Furthermore, formal embedding of feedback moments might also improve and encourage informal feedback, by normalising the act of providing feedback on a colleague's performance.

Apart from individual performance assessment, there might be other adequate preventive policies. A recent advisory report on performance and poor performance, written for the Dutch Association of Health Law (VGR), included further advice on how to prevent poor performance.[7] Amongst other things, the authors indicate it is important to have a programme aimed at improving well-being of professionals and to implement recovery days to create intermissions between busy periods.

POOR PERFORMANCE: A COLLECTIVE RESPONSIBILITY

Our questionnaire study (chapter 2) shows that dealing with poorly performing colleagues is an important issue for all healthcare professions, with approximately one in three professionals reporting to have experienced such a situation in the preceding year. A follow-up study on experiences of nurses in home care confirmed that this is an issue across different settings in the Netherlands, reporting that 42% of respondents experienced a poorly performing colleague.[8] Yet not all professionals know how to act, or feel confident when signalling poor performance in a colleague, especially when this colleague is from another profession or organisation. Creating and clarifying reporting opportunities when confronted with a colleague that might be incompetent or impaired, should in my opinion be a priority for professional organisations, policymakers and regulatory bodies. Our interview study (chapter 5) with professional associations showed that only the associations for general practitioners and medical specialists have developed a protocol on how to act upon such concerns. It is unlikely that having a protocol available will solve all the issues currently present in dealing with situations of poor performance. However, clarifying what is expected of professionals and what the process of addressing poor performance looks like, will help build knowledge and confidence in dealing with such situations. For professionals, it is not an every-day situation they will encounter. Furthermore, it could give a sense of security for both the colleague and the professional with performance concerns, in that it shows the healthcare organisation has its processes in order to deal with poor performance adequately.

Poorly performing professionals often get isolated (*drift away*) from their professional environment.[1, 9] Furthermore, several empirical studies show that professionals (doctors) do not seek help themselves or wait with seeking help when having problems.[10] Reasons for this include fear of losing respect from peers, thinking they can deal with the concerns themselves, denying the concerns all together, or finding it difficult to speak about performance concerns.[10] This emphasises the important role colleagues have in signalling performance concerns at an early stage. This importance is resonated in the previously mentioned State of Healthcare publication of the Inspectorate, in which it describes a culture in which colleagues dare to question each other's choices and speak up when noticing things that go wrong (including one's performance) as a necessity,

and the Inspectorate's strategic plan for 2016-1019.[11, 12] Our research shows, however, there is room for improvement regarding the number of professionals that act upon performance concerns of a colleague (chapter 2). One in three professionals in our study indicated that they did not act in real life when noticing a poorly performing colleague, mainly because they thought poor performance could not be proven. One in five professionals did not act because they did not know what actions to take, again emphasising the importance of clarifying reporting opportunities. Furthermore, almost one in four professionals did not act due to possible consequences for the team climate. As said before, the use of performance assessments, both individually and group oriented, could perhaps support creating a culture of speaking up and discussing performance concerns.[13] Furthermore, such methods may also be appropriate for signalling early signs of performance problems, though data on the effectiveness for this purpose are limited. The evaluation of the use of Appraisal & Assessment in a Dutch hospital, showed that 48% of professionals and 78% of appraisers thought it is an adequate method to detect poor performance at an early stage.[5] It must be said however, that relying on colleagues alone is unlikely to be enough in signalling poor performance, and it has previously been suggested that multiple sources of intelligence are needed to adequately identify poorly performing professionals.[14] An example is the use of reviews on patient rating sites by the Dutch Inspectorate next to several other quality indicators, in their daily risk-based supervision.[15]

THE IMPACT OF BEING UNDER INVESTIGATION

Our research shows that the disciplinary process and imposed measures can have a profound psychological and professional impact on healthcare professionals (chapter 3). The objective of the Dutch disciplinary procedure is (as the tribunal itself emphasises) to improve the quality of healthcare and not to punish professionals.[16] This quality improvement may target two levels; namely the profession (other professionals) and the professional. Disciplinary verdicts could clarify to other professionals what is considered to be inadequate performance, and prevent other professionals in making similar mistakes or behaving in a similar way. Several Dutch professional journals publish summaries of disciplinary cases to inform the profession. Second, disciplinary measures could correct the specific professional so that in future he or she will perform according to the profession's norms and values. Concerning the latter, it seems essential that professionals learn from the situation that gave rise to a complaint. A recent questionnaire study of disciplined professionals showed that only 17% of the respondents agreed with the judgement of their professional performance.[17] This, in combination with the emotional and professional impact it might have on some professionals, casts serious doubts if the objective of improving quality of healthcare for that specific professional is always

achieved. In the United Kingdom, experiences with fitness-to-practice investigations of the General Medical Council (GMC) have led to criticism of these investigations.[18] In a response to this criticism, the GMC commissioned a review of its procedures and as result has embedded mental health awareness in aspects of their work and will implement further changes in their procedures in 2017.[19] In the Netherlands, the disciplinary procedure has been a target of criticism in recent years as well. In 2015, the Royal Dutch Medical Association (KNMG) wrote a letter to the Minister of Health, warning that the disciplinary procedure could become a light version of criminal law, after public calls for more severe sanctions.[20] Based on our research, I cannot draw strong conclusions about the possible need for adjusting or substituting disciplinary law, since we only looked at one aspect and did not perform a full evaluation of the disciplinary process. I do think however, that disciplinary tribunals should take into account the stress and impact healthcare professionals experience, and assess if, like the GMC, it is deemed necessary to adjust procedures. Although I do not have knowledge of a current evaluation of these procedures, the disciplinary tribunal does seem to try to improve their procedures continually. In their two most recent annual reports they state that they aimed and have achieved to further shorten disciplinary procedures, and furthermore want to improve their arguments for verdicts and imposed measures. The latter again to stress out that their aim is to improve the quality of healthcare, and not to punish professionals.[16, 21]

PEER SUPPORT: HELPING A COLLEAGUE IN NEED

Our findings suggest that professionals might benefit from moral support before, during and after the disciplinary process. Our interview study with professional associations (chapter 5) shows that currently such support is not structured on a national level. It could be that emotional support is organised in healthcare organisations. In recent years, there has been increasing attention for peer support in healthcare organisations. This support is aimed at the well-being of professionals after events that could impact the professional, however primarily seem to be focused on professionals who experienced a medical error or patient safety incident.[22] In recent years, for example, ten hospitals participated in the Dutch Network for Peer Support, aimed at finding adequate supportive mechanisms for professionals involved in such incidents.[23] Similar support might not be organised sufficiently everywhere. A previous study among members of the Dutch Association for Obstetrics and Gynaecology (NVOG), one of the 32 scientific associations of the professional association for medical specialists, showed that 60% of the respondents thought the current support in their organisation was not good.[24] Following these findings, the NVOG started with its own committee for peer support, aimed at supporting members after traumatic events.[25] In my opinion, such peer support should have a broader scope than patient safety incidents alone, and focus on all

situations where professionals might feel impacted or have concerns about their performance. This includes being under investigation for poor performance. In that regard, it is good to know that in some hospitals peer support is automatically initiated in cases of disciplinary complaints (based on personal correspondence). I would encourage other hospitals to follow this example, since support could potentially act as a safeguard for (further) patient safety risks by giving the professional emotional shelter in times of turbulence. For professionals that do not work in an organisation but, for example, in solo or small-scale practices, support organised on a national level could be beneficial. International experiences with emotional support for doctors organised on a national level suggest such services are well-received and effective, and include support during fitness-to-practice investigations in the UK, counselling for stressed doctors in New Zealand and peer counselling for doctors in Norway.[26-28] In the Netherlands, local networks of peer support among general practices, in which general practitioners support each other after traumatic events, have been initiated in the past years.[29] Experiences with this support seem positive too, though no empirical data is yet available. Again, I believe professional associations could take a leading role in either developing support or assist in spreading successful local initiatives. Although the presence of peer support seems essential, it is also important to consider individual needs of professionals on a case-to-case basis. Experiences with peer support indicate that it is important to realise that some professionals do not have any need for support.[29]

PROGRAMMES TO GET BACK ON TRACK

In the Netherlands, the Royal Dutch Medical Association (KNMG) has developed a programme for addicted physicians. Initiatives to support poorly performing dentists and pharmacists have been taken in recent years too. No outcomes of these programmes have been published publicly though. Our literature review (chapter 4) shows that outcomes in international programmes for substance use disorders have positive results, though for other concerns, evidence for effectiveness varies and is limited. Furthermore, most studies focus on physicians (and to a lesser extent nurses), whereas less is known on outcomes for other professions. I must conclude that the call for rehabilitation programmes by the Health Care Inspectorate in their 2013 State of Health Care publication has not been followed by the initiation of numerous new programmes, with only the Royal Dutch Pharmacists Association (KNMP) doing so. In our study, we did not explore reasons why professional associations do not have such programs. Perhaps it is expected that remediation and rehabilitation will be provided by healthcare organisations, for example, through educational programmes, mentoring and behavioural coaching, or that health care organisations refer professionals to specialist services. The benefit of support organised on a national level is, in my opinion, that experience can be gained

with successful approaches in getting professionals back on track, since the numbers are not expected to be very high in single healthcare organisations. Furthermore, professionals that work in a solo or small-scale practice will lack the support of a healthcare organisation. It is essential that there is adequate support in place for all professionals that have performance concerns, not only those working in healthcare organisations. In that regard, it is interesting to see that the absence of specialist services for professionals with mental health problems motivated a psychiatrist and psychologist to start a mental healthcare organisation aimed solely at healthcare professionals.[30] These services mostly rely on the specific professional seeking help him- or herself though, whereas professionals are often reluctant to seek help themselves.[10] The advantage of programmes, such as those for pharmacists and dentists, is that family, friends and colleagues can refer the professional to the programme, which might prove to be the first step professionals with performance concerns need in getting help. Furthermore, the programmes of dentists and pharmacists focus not on one (cause of) performance concern (e.g. substance use), but take all causes and symptoms regarding poor performance into consideration. Since there is often an overlap of factors contributing to the onset and continuation of poor performance, programmes targeting multiple factors seem advantageous compared to specialist services focusing on one.

METHODOLOGICAL REFLECTION

Poor performance of individual professionals is a sensitive matter, and not everyone in healthcare will be willing to speak openly and frankly about the issue. We experienced this first hand when we received a number of negative responses to the invitation for our questionnaire study, though it must be said that we also received several positive responses of professionals who indicated to appreciate that we studied poor performance. The sensitivity of the topic, however, could be one of the reasons why limited empirical research has been done in the Netherlands. This thesis provides new insights in how poor performance is addressed in the Netherlands, and gives relevant stakeholders input for policy and practice (see below: implications for policy and practice). There are, however, a few methodological remarks I would like to make. These remarks stretch beyond the individual chapters, in which the limitations of the specific studies have already been described, but concern the thesis as a whole.

Definitions

This thesis started with stating that there is no single operational definition for poor performance. For this reason, but also for pragmatic reasons, the definition of poor performance has not been identical in the four studies of this thesis. In our questionnaire study, we included the definition of the Royal Dutch Medical Association to be

very specific to respondents on what we defined as poor performance. In our interview study with disciplined professionals, we selected interviewees through public data of disciplinary measures. In contrast to our questionnaire study, this could mean that poor performance did not concern a pattern of poor healthcare delivery, but a single situation of poor performance. Our literature review took an international scope and focused on specific performance concerns or causes of poor performance. Lastly, for our interview study with professional associations we were also interested in prevention of poor performance, and therefore took a broader scope than in other chapters. This means that when comparing findings across the chapters, the difference in used definitions should be taken into account. Additionally, some other studies on poor performance have included fraud in the definition. It has been suggested that fraud affects patient safety as whole, and one could argue that a professional that commits fraud is poorly performing. We did not include fraud in the scope of this thesis, however, because we argue that the consequences of fraud for patient safety in the individual professional-patient relationship are limited.

Professions

This thesis included eight professions for which a license is required in the Netherlands. Although we have reported some notable differences between professions in the individual chapters, we did not aim to provide an extensive and elaborate comparison between professions in this thesis, but rather study the group of healthcare professionals as a whole. It is, however, not unlikely that differences in roles and context between professions lead to differences in how to adequately address poor performance. Furthermore, differences in roles and context within professions (e.g. different medical specialties, different educational degrees in nurses) could also influence which strategies are adequate in addressing poor performance.

IMPLICATIONS FOR POLICY AND PRACTICE

In the following paragraphs, I will discuss the implications that our findings (might) have on relevant stakeholders in the Netherlands, and suggest what actions these stakeholders could or should take to further improve how poor performance of professionals is addressed in the Netherlands.

Healthcare professionals' role in addressing poor performance is twofold. First, they have a primary responsibility when it comes to their own performance. They could (and should) use methods to gain insight in their performance and reflect on this insight, for example through individual performance assessment methods such as 360° feedback. Additionally, they should reach out when having concerns regarding their performance, though as said professionals experience barriers in seeking help.[10] This emphasises the

importance of professionals' responsibility in performance of peers. Second, healthcare professionals should address performance concerns in colleagues. For this, a few things seem relevant in which professionals can take a leading role. First, it is important to establish an open culture where feedback on performance (and with that performance concerns) is considered normal and given routinely. In this, it is also important that the next generation of professionals is educated in creating an open culture and working in such a culture. In several hospitals, initiatives have been taken to include feedback and speaking up in the education of professionals, such as feedback sessions in which medical residents discuss points for improvement with medical specialists and suggest strategies to achieve those improvements.[31] Second, professionals should get acquainted with relevant procedures and policies in addressing performance concerns of colleagues. Discussing the concerns with the specific colleague comes first, but this might not always lead to the desired outcome. It is important to know what further steps could and should be taken.

Healthcare organisations are responsible for the performance of individual professionals within their organisation. They should take a key role in creating and clarifying reporting opportunities in their organisation. Furthermore, they should steer towards the use of performance assessment methods. The latter is already stimulated by licensing boards of physicians, who made the individual performance assessment methods for general practitioners (IFH) and medical specialists (IFMS) a requirement for relicensing every five years. The most important task for organisations is to create a culture in which providing feedback and addressing concerns are deemed normal and done routinely.

Professional associations could take a primary role in developing structured individual performance assessment methods for their profession. Additionally, they could take a leading role in structuring support for professionals under investigation. This might be especially relevant for professionals that do not work in a larger organisation in which a system of support might already have been set up. Finally, professional associations seem to be in a key position to develop rehabilitation and remediation programmes for professionals with performance problems. The associations for dentists and pharmacists have come with initiatives in the past years. It could be an incentive for other professional associations if they could share their experiences and outcomes.

The Health Care Inspectorate (IGJ) could use our findings in their discussions with professionals, organisations and professional associations in addressing areas of concern and for further development. Additionally, it can take a more coercive approach. The use of individual performance assessment methods for medical specialists, for example, as well as the presence of regulation for poorly performing professionals, have been included as indicators in the Indicator Set for hospitals for years now.[32] A similar approach could be considered for other professions and sectors too.

Patients are at the receiving end of (poor) performance but are not necessarily a passive actor when it comes to addressing poor performance. They can take an active role and throughout this thesis, glimpses of this role have come through. This includes their input in performance assessment (360° feedback), complaints procedures and patient rating websites. Additionally, the Inspectorate will start experimenting with lay inspectors which potentially targets (poor) performance of individual professionals as well.[12] With the increased emphasis being put on patient involvement in healthcare, also when it comes to improving patient safety, their role in evaluating performance and addressing concerns will likely keep growing in the coming years.

IDEAS FOR FURTHER RESEARCH

This thesis adds to the knowledge on addressing poor performance of professionals, and specifically adds to knowledge for the Dutch context, in which only limited empirical studies have been conducted. From our findings, we have identified some other interesting areas for further research. First, there is a need to evaluate existing rehabilitation programmes in the Netherlands. Although international results for rehabilitation of substance use disorders are positive, evidence for other performance concerns is limited. In this regard, it would be especially interesting to study the rehabilitation programmes for dentists and pharmacists which focus on different sorts of concerns. Research could focus on the kind of concerns professionals present themselves with, experiences with the programme, and ultimately outcomes of the programme. Nonetheless, it cannot be assumed that the Dutch programme for addicted physicians will have similar positive results as its international counterparts, and this should be studied as well. Second, we identified support offered by professional associations, yet a next step would be to examine if professionals make use of this support, find it valuable and if it helps them in addressing poor performance. Additionally, support through other channels than the professional associations could be included in such an evaluation as well. Third, this thesis focused on five identified phases of addressing poor performance and eight professions. A more in-depth analysis of each of the phases and each profession could lead to better insight for the specific phase and profession. This might also result in more tailored strategies for improvement of addressing performance concerns and getting professionals back on track. Finally, addressing poor performance is about protecting patients and making sure they receive safe care of good quality. It would, therefore, be interesting to specifically study the role that patients (could) have in prevention of and dealing with poor performance.

CONCLUSION

Although the focus in patient safety has increasingly been on improving suboptimal systems, it is as important to have attention for each individual in that system. In the introduction of this thesis, I asked how healthcare professions and professionals in the Netherlands address poor performance of individual healthcare professionals and how this can be improved. In answering this question, we first investigated what healthcare professionals do when signalling a poorly performing colleague. With two thirds of the professionals reporting to have acted upon situations of performance concerns, there is room for improvement. Subsequently, we showed that the disciplinary process and imposed measures can have a profound impact on healthcare professionals, both professionally as personally. Our research suggests this might hamper rehabilitation afterwards. Our review on the outcomes of international remediation and rehabilitation programmes showed that there are positive outcomes for professionals (mainly physicians) with substance use disorders. For other performance concerns, evidence is limited. In the Netherlands, only a few similar programmes currently exist. Our final study showed that support from professional associations primarily focuses on prevention of poor performance, though methods for individual performance assessment are scarce. In this final chapter, I identified five areas for moving forward when it comes to addressing performance concerns of individual healthcare professionals. These relate to enhancing performance insight, the collective responsibility of professionals regarding poor performance of colleagues, the impact of being under investigation, peer support, and programmes for rehabilitation and remediation.

I would like to conclude with reflecting on what I started with, namely the title of this thesis. The title suggests that addressing poor performance is always a case of getting professionals back on track. As I indicated in the introduction, this might not always be an option, and there might be situations one must conclude that getting back on track is no longer possible. While addressing poor performance, it is important that, at the same time, patients are protected from patient safety hazards as a result of individual performance failure. A consultation paper of the Department of Health in the United Kingdom in that sense was accurate in its title; addressing poor performance of healthcare professionals is and should be about 'supporting professionals, protecting patients'.[33] Often these two goals will be compatible, but if they are not, the latter should prevail. In those instances however, the professional concerned is not the only one who poorly performed. A former healthcare inspector has previously used a striking metaphor for poorly performing professionals that I will use to substantiate this statement: road cycling.[9] The poorly performing professional might be compared with a cyclist who is being dropped from the back of the peloton. While being dropped, the distance will gradually increase and he or she will slowly drift away from the group. This situation occurs from two sides: the cyclist who struggles, and the others who fail to notice or act.[9]

Without the help of others, it will prove almost impossible to get back to the peloton. When we relate this back to healthcare, I again want to stress the mutual responsibility of both individuals and their professional environment. Also, it is easier to get someone back to the peloton when the distance is still short, emphasising the need to not only address performance concerns adequately, but also in a timely manner. Only then, the ones dropped will have a fair chance to get back on track.

REFERENCES

1. Holden JD, Cox SJ, Hargreaves S. Avoiding isolation and gaining insight. BMJ Careers. 2012.
2. Weenink JW, Kool RB. Sturen op verantwoord functioneren en omgaan met verminderd functioneren van zorgverleners. Nijmegen: IQ healthcare, Feb 2016.
3. Ferguson J, Wakeling J, Bowie P. Factors influencing the effectiveness of multisource feedback in improving the professional practice of medical doctors: a systematic review. BMC medical education. 2014;14:76.
4. Nurudeen SM, Kwakye G, Berry WR, Chaikof EL, Lillemoe KD, Millham F, et al. Can 360-Degree Reviews Help Surgeons? Evaluation of Multisource Feedback for Surgeons in a Multi-Institutional Quality Improvement Project. Journal of the American College of Surgeons. 2015;221(4):837-44.
5. ten Dam M, Belgers T, Keemers M. Opbrengst IFMS niet eenduidig. Nijmeegs ziekenhuis evalueert intercollegiale beoordeling van specialisten. Medisch Contact. 2016.
6. Walshe K, Boyd A, Bryce M, Luscombe K, Tazzyman A, Tredinnick-Rowe J, et al. Implementing medical revalidation in the United Kingdom: Findings about organisational changes and impacts from a survey of Responsible Officers. Journal of the Royal Society of Medicine. 2017;110(1):23-30.
7. Lombarts K, de Die AC van , Eyck van Heslinga HC, Hammerstein A. Functioneren en disfunctioneren. Pre-advies VGR 2016.Den Haag: Sdu Uitgevers; 2016.
8. Maurits EE, de Veer AJ, Groenewegen PP, Francke AL. Dealing with professional misconduct by colleagues in home care: a nationwide survey among nursing staff. BMC nursing. 2016;15:59.
9. Leistikow I. Prevention is better than cure: learning from adverse events in healthcare. Boca Raton, FL: CRC Press; 2017. .
10. Braquehais MD, Valero S, Matali JL, Bel MJ, Montejo JE, Nasillo V, et al. Promoting voluntary help-seeking among doctors with mental disorders. International journal of occupational medicine and environmental health. 2014;27(3):435-43.
11. Staat van de Gezondheidszorg 2013. Op weg naar aantoonbaar verantwoord functionerende beroepsbeoefenaren in de zorg. Utrecht: Inspectie voor de Gezondheidszorg; 2013.
12. Meerjarenbeleidsplan 2016-2019, Gezond vertrouwen. Utrecht: Inspectie voor de Gezondheidszorg; 2016.
13. van den Goor MM, Wagner CC, Lombarts KM. Poor Physician Performance in the Netherlands: Characteristics, Causes, and Prevalence. Journal of patient safety. Jul 2015.
14. Shojania KG, Dixon-Woods M. 'Bad apples': time to redefine as a type of systems problem? BMJ quality & safety. 2013;22(7):528-31.
15. van de Belt TH, Engelen LJ, Verhoef LM, van der Weide MJ, Schoonhoven L, Kool RB. Using patient experiences on Dutch social media to supervise health care services: exploratory study. Journal of medical Internet research. 2015;17(1):e7.
16. Jaarverslag 2015. Den Haag: Tuchtcolleges voor de gezondheidszorg en College van Medisch Toezicht; 2016.
17. Friele R, Hendriks M, Laarman B, Bouwman R, de Veer A. Zorgverleners en burgers over het openbaar maken van door de tuchtrechter opgelegde berispingen en geldboetes. Utrecht: Nivel; 2017.
18. McCartney M. Margaret McCartney: Stop disciplining us for being ill. BMJ (Clinical research ed). 2016;353:i1925.
19. Rowland A. GMC review of fitness to practise procedures is complete. BMJ (Clinical research ed). 2016;354:i3654.

20. Maak van tuchtrecht geen strafrecht! [press release]. Utrecht: Koninklijke Nederlandsche Maatschappij tot bevordering der Geneeskunst; June 15 2016.
21. Jaarverslag 2016. Den Haag: Tuchtcolleges voor de gezondheidszorg en College van Medisch Toezicht; 2017.
22. Shapiro J, Galowitz P. [Clinicians need more support in cases of medical error]. Nederlands tijdschrift voor geneeskunde. 2016;160:D181.
23. Vanhaecht K, Coeckelberghs E, D. S, Schouten L, Zeeman G. Resultaten Enquête Leernetwerk Peer Support in de zorg: Impact op zorgverleners na betrokkenheid bij een patiëntveiligheidsincident. 2016.
24. Paauw S. Gynaecologen willen betere opvang na belastende ervaring. Medisch Contact. 2014 November 19.
25. Paauw S. Gynaecologen helpen elkaar na trauma. Medisch Contact. 2016 October 12.
26. Cunningham W, Cookson T. Addressing stress-related impairment in doctors. A survey of providers' and doctors' experience of a funded counselling service in New Zealand. The New Zealand medical journal. 2009;122(1300):19-28.
27. Final Report of the Pilot Meetings with Doctors. Hemel Hempstead: Hewell Taylor Freed & Associates, 2014 August.
28. Isaksson Ro K, Veggeland F, Aasland OG. Peer counselling for doctors in Norway: A qualitative study of the relationship between support and surveillance. Social science & medicine (1982). 2016;162:193-200.
29. Paauw S. Een collega als buddy. Medisch Contact. 2015 April 1.
30. Paauw S. 'Ik zag de volle spreekkamer en raakte in paniek'. Unieke ggz-instelling helpt artsen met psychische problemen. Medisch Contact. 2017 August 21.
31. Slootweg I, Busch O, Lombarts KM. Zorgprofessionals opleiden voor veilige bespreekcultuur. Tijdschrift over Kwaliteit en Veiligheid in Zorg (KIZ). 2016.
32. Het resultaat telt. Ziekenhuizen 2015. Utrecht: Inspectie voor de Gezondheidszorg; 2017.
33. Supporting doctors, protecting patients: a consultation paper on preventing, recognising and dealing with poor clinical performance of doctors in the NHS in England. London, United Kingdom: Department of Health; 1999.

Summary in English

Summary in Dutch

Acknowledgements

About the author

List of publications

SUMMARY IN ENGLISH

Performance can be described as what a professional shows in practice. Poor performance refers to situations where performance does not meet predefined norms and values. Poor performance may have serious underlying causes. Examples are mental and behavioural problems such as depression and substance abuse, physical impairment, and the failure to maintain or acquire knowledge and skills. Since poor performance can have serious consequences for patient safety, it is important that it is addressed promptly and adequately. In addressing poor performance, several aspects are of importance. First, it is necessary for performance concerns to be signalled. Subsequently, it is important to assess if the signal reflects a situation of poor performance. When poor performance has been demonstrated, appropriate measures need to be taken. An important final step of addressing poor performance is to ensure that the professional gets back to an adequate performance level. Poor performance only affects a small number of healthcare professionals. For all healthcare professionals though, it is important that adequate performance is maintained. We therefore distinguish five phases in addressing poor performance: (1) prevention of poor performance, (2) signalling poor performance, (3) assessment of poor performance, (4) taking measures against poor performance, and (5) remediation to an adequate performance level. Professions and professionals have an important responsibility in addressing poor performance. This thesis investigates how healthcare professions in the Netherlands address poor performance, and aims to identify specific areas for improvement for policy and practice. Healthcare professionals are defined as dentists, midwives, nurses, pharmacists, physicians, physiotherapists, psychologists and psychotherapists.

Chapter 2, **Am I My Brother's Keeper**, describes a questionnaire study of healthcare professionals in the Netherlands on experiences with impaired and incompetent colleagues. The study shows that dealing with impaired or incompetent colleagues is an issue across healthcare professions, with almost one-third (31.3%) of the respondents indicating that they had an experience with such a colleague in the preceding 12 months. Two-thirds of the professionals (68.6%) reported having acted upon it, most often by talking to the professional concerned. The chapter concludes that creating and clarifying reporting opportunities when confronted with an incompetent or impaired colleague should be a priority for professional organisations, policymakers and regulatory bodies.

Chapter 3, **The Disciplined Healthcare Professional**, describes an interview study that explores what impact the disciplinary process and imposed measures have on healthcare professionals. We interviewed 16 healthcare professionals on whom the Disciplinary Tribunal imposed a measure. Professionals described feelings of misery and insecurity both during the disciplinary process as well as in its aftermath. Also, they reported to fear receiving new complaints and provide care more cautiously after the imposed measure. Factors that may enhance psychological and professional impact are

the publication of measures, media coverage, the feeling of being treated as guilty before any verdict has been reached, and the long duration of the process. Although a disciplinary measure is meant to have a corrective effect, our results suggest that the impact that is experienced by professionals might hamper optimal rehabilitation afterwards.

Chapter 4, **Getting Back On Track**, provides an overview of the evidence regarding outcomes of remediation and rehabilitation programmes for healthcare professionals with performance concerns. The literature is dominated by outcomes for physicians in North American programmes, with positive outcomes for professionals with substance use disorders and varying outcomes for other performance concerns. We call for other programmes to report on outcomes for different professions and concerns. Because of the positive outcomes of physician health programmes, other countries should consider introducing similar programmes to support professionals getting back on track.

Chapter 5, **Supporting Healthcare Professionals**, explores how professional associations aim to support professionals to prevent and deal with poor performance. We interviewed representatives of nine professional associations about available policy and support regarding poor performance. Three themes emerged from our data (elaborating on professional performance, performance insight and dealing with poor performance) for which we identified a total of ten categories of support. The study identifies gaps that associations could follow up on, such as clarifying what to do when confronted with a poorly performing colleague, supporting professionals that poorly perform, and developing methods for individual performance assessment to gain performance insight.

Following the studies in this thesis, I have identified five themes that, in my opinion, are key themes in moving forward when it comes to addressing poor performance promptly and adequately. First, it seems essential to develop and structure methods for individual performance evaluation, since many associations do not provide such support. This is worrying, since previous studies show that performance insight is often lacking in poorly performing professionals. Second, addressing poor performance should be a collective responsibility and professionals should be supported in taking responsibility. Professionals report that they do not always know what to do when signalling a poorly performing colleague, and only two associations have published protocols to clarify procedures. Third, attention should be given to the impact that being under investigation has on professionals. This thesis suggests that this might negatively influence the provision of care during and after the disciplinary process. Fourth, emotional or moral support might benefit professionals who are under investigation or have performance concerns. Fifth, there are only a few programmes in the Netherlands aimed at remediation or rehabilitation of poorly performing professionals, of which outcomes are not known. I call for these programmes to publish their experiences and outcomes, which may provide an incentive for other professions to initiate similar programmes.

SUMMARY IN DUTCH

Verantwoord functioneren gaat over wat een zorgverlener laat zien in de praktijk. Verminderd functioneren gaat over die situaties waarin niet wordt voldaan aan gestelde normen en waarden. Hieraan kunnen serieuze onderliggende oorzaken ten grondslag liggen, bijvoorbeeld mentale en gedragsproblemen zoals depressie en middelengebruik, fysieke beperkingen, en de onkunde om kennis en vaardigheden op peil te houden. Aangezien verminderd functioneren ernstige consequenties kan hebben voor de patiëntveiligheid, is het belangrijk om dit tijdig en adequaat te adresseren. Hierin zijn verschillende aspecten belangrijk. Zo is het eerst noodzakelijk dat zorgen rondom functioneren worden gesignaleerd. Vervolgens is het belangrijk dat wordt vastgesteld of het daadwerkelijk gaat om verminderd functioneren. Als dit het geval is zullen er adequate maatregelen moeten worden getroffen, en vervolgens is het ook van belang dat de betreffende zorgverlener weer op het goede spoor komt. Voorgaande betreft maar een beperkt aantal zorgverleners. Voor alle zorgverleners is het echter van belang om het functioneren op peil te houden en eventueel verminderd functioneren te voorkomen. We onderscheiden in dit proefschrift daarom vijf fases in het adresseren van verminderd functioneren: 1) preventie, 2) signaleren, 3) vaststellen, 4) maatregelen nemen, en 5) herstel naar adequaat functioneren. Beroepsgroepen en zorgverleners kennen een belangrijke verantwoordelijkheid om verminderd functioneren te adresseren. Dit proefschrift onderzoekt hoe beroepsgroepen in de Nederlandse gezondheidszorg dit doen, en heeft als doel om verbeterpunten voor praktijk en beleid te identificeren. Zorgverleners zijn daarbij gedefinieerd als apothekers, artsen, fysiotherapeuten, psychologen, psychotherapeuten, tandartsen, verloskundigen en verpleegkundigen.

Hoofdstuk 2, **Am I My Brother's Keeper**, beschrijft een vragenlijstonderzoek over de ervaringen van zorgverleners met disfunctionerende collega's. Het onderzoek toont aan dat het omgaan met disfunctionerende collega's voorkomt in alle beroepsgroepen; bijna een derde (31,3 %) van de zorgverleners geeft aan in het voorgaande jaar dit meegemaakt te hebben. Twee derde (68,6%) geeft aan actie te hebben ondernomen in deze situatie, vaak door de collega aan te spreken op zijn disfunctioneren. Het hoofdstuk concludeert dat het creëren en verduidelijken van rapporteermogelijkheden een prioriteit moet zijn voor beroepsverenigingen, beleidsmakers en toezichthouders.

Hoofdstuk 3, **The Disciplined Healthcare Professional**, beschrijft een interviewstudie over de impact van een tuchtzaak en opgelegde tuchtmaatregelen op zorgverleners. We hebben zestien zorgverleners geïnterviewd aan wie het Tuchtcollege een maatregel heeft opgelegd. Zorgverleners beschreven gevoelens van ellende en onzekerheid, zowel tijdens de tuchtzaak als erna. Verder meldden ze nieuwe klachten te vrezen en voorzichtiger te zijn in hun zorgverlening na de opgelegde maatregel. Factoren die de impact kunnen vergroten zijn de publicatie van maatregelen, berichtgeving in de media, het gevoel als schuldige te zijn behandeld nog voordat uitspraak is gedaan en de lange

duur van het proces. Hoewel een tuchtmaatregel corrigerend is bedoeld, suggereren onze resultaten dat de impact ervan een optimale rehabilitatie nadien kan belemmeren.

Hoofdstuk 4, **Getting Back On Track**, beschrijft de uitkomsten van internationale herstelprogramma's voor zorgverleners met functioneringsproblemen. De literatuur beschrijft vooral uitkomsten voor artsen in Noord-Amerikaanse programma's, met positieve uitkomsten voor verslaafde zorgverleners en wisselende uitkomsten voor andere problemen. We roepen andere programma's op om te rapporteren over de resultaten voor verschillende beroepsgroepen en problemen. Vanwege de positieve resultaten van de programma's voor artsen, zouden andere landen moeten overwegen soortgelijke programma's te introduceren om zorgverleners weer op het goede spoor te krijgen.

Hoofdstuk 5, **Supporting Healthcare Professionals**, beschrijft hoe beroepsverenigingen zorgverleners trachten te ondersteunen bij het voorkomen van en omgaan met verminderd functioneren. We hebben vertegenwoordigers van negen beroepsverenigingen geïnterviewd over hun beleid en ondersteuning. Daarin kwamen drie thema's naar voren (uitweiden over functioneren, inzicht in het eigen functioneren en het omgaan met verminderd functioneren) waarvoor we in totaal tien categorieën ondersteuning hebben geïdentificeerd. De studie benoemt hiaten die verenigingen kunnen opvolgen, zoals verduidelijking van wat zorgverleners moeten doen wanneer ze worden geconfronteerd met een slecht functionerende collega, ondersteuning van zorgverleners die verminderd functioneren en het ontwikkelen van methoden voor het evalueren van het eigen functioneren.

Volgend op deze studies heb ik vijf thema's geïdentificeerd die, naar mijn mening, belangrijk zijn om vooruitgang te boeken in het adequaat en tijdig adresseren van verminderd functioneren. Ten eerste lijkt het essentieel om methoden voor evaluatie van individueel functioneren te ontwikkelen en te structureren, omdat veel beroepsverenigingen dergelijke ondersteuning niet bieden. Dit is zorgwekkend, omdat eerdere studies aantonen dat inzicht in eigen functioneren vaak ontbreekt bij slecht functionerende professionals. Ten tweede moet het aanpakken van verminderd functioneren een collectieve verantwoordelijkheid zijn en moeten professionals worden ondersteund bij het nemen van die verantwoordelijkheid. Professionals melden dat ze niet altijd weten wat ze moeten doen bij het signaleren van een disfunctionerende collega, en slechts twee verenigingen hebben protocollen gepubliceerd om procedures te verduidelijken. Ten derde moet aandacht worden besteed aan de impact die een tuchtzaak en maatregelen hebben op professionals. Dit proefschrift suggereert dat dit een negatieve invloed zou kunnen hebben op de zorgverlening tijdens en na de tuchtzaak. Ten vierde kan emotionele of morele steun nuttig zijn voor zorgverleners die worden onderzocht wegens hun functioneren. Ten vijfde zijn er slechts enkele herstelprogramma's in Nederland voor professionals met functioneringsproblemen, waarvan de uitkomsten niet bekend zijn. Ik roep deze programma's op om hun ervaringen en resultaten te publiceren, wat een stimulans kan zijn voor andere beroepsgroepen om vergelijkbare programma's te ontwikkelen.

ACKNOWLEDGEMENTS

Naast de vele zorgverleners en andere werkenden in de zorg die op enige manier input hebben gegeven aan het onderzoek in dit proefschrift, is er een aantal personen die ik nadrukkelijk wil bedanken voor hun steun en aanwezigheid tijdens mijn promotietraject.

Het team

Allereerst gaat veel dank uit naar mijn begeleidingsteam. Mijn copromotor, **Tijn Kool**; van jou heb ik binnen en buiten dit promotietraject veel geleerd over het opzetten en uitvoeren van onderzoeksprojecten. Daarin heb je me altijd veel mogelijkheden gegeven om me in de rol van onderzoeker en projectleider verder te ontwikkelen. En misschien nog wel het belangrijkste: het was altijd erg prettig samenwerken! Mijn eerste promotor, **Gert Westert**; ik waardeer het dat ik altijd bij je kon binnenlopen. Je had oog voor de grote lijnen en bewaakte de haalbaarheid. Daarnaast ben ik je ontzettend dankbaar voor de mogelijkheid om een jaar in Australië te werken! Dat heeft mij professioneel en persoonlijk veel gebracht. Mijn tweede promotor, **Ronald Bartels**; jij was altijd scherp op de inhoud en had oog voor de kern. Jouw kritische zorgverlenersperspectief heb ik erg gewaardeerd. Dank daarvoor! Mijn mentor, **Rob Reuzel**; indirect ook onderdeel van mijn begeleidingsteam. Je weet studenten op een prikkelende manier te stimuleren en het beste uit henzelf te laten halen. Dank voor de momenten van reflectie. Tot slot wil ik de leden van de manuscriptcommissie, **prof. dr. H. van Goor**, **prof. dr. H.A.M. Marres** en **prof. dr. M.J.M.H. Lombarts**, hartelijk danken voor de tijd en moeite die zij hebben gestoken in het beoordelen van dit proefschrift.

Collega's

Veel dank gaat uit naar (ex-)collega's. Collega's bij IQ healthcare; dank jullie wel voor de plezierige jaren die ik op de afdeling heb gekend. Ik voel(de) me er kind aan huis. Veel dank aan **Mariëlle Ouwens**, voor de kansen aan het begin van mijn carrière. De sfeer en mentaliteit die je bij IQ development neerzette vind ik iets om trots om te zijn. Daarnaast **Jolanda van Haren**; naast de gezellige koffiemomenten wil ik je bedanken voor de assistentie bij het afronden van dit proefschrift. *I would like to thank all colleagues from the Bureau of Health Information, UNSW and UTS in Sydney. My time in Australia was special and a great opportunity to mature both professionally and personally. In particular, I would like to thank* ***Jean-Frédéric Levesque*** *for the numerous opportunities you have given me to pursue my professional interests in Sydney.* Collega's van de Erasmus School of Health Policy & Management; dank voor de prettige ontvangst die ik bij jullie heb gekend. We hebben een mooie club bij HCG. Daarbij gaat speciale dank uit naar **Roland Bal**, voor de ruimte die je me hebt gegeven om in mijn nieuwe positie aan de afronding van mijn proefschrift te kunnen werken. Alle onderzoekers en inspecteurs uit de Acade-

mische Werkplaats Toezicht; veel van jullie hebben op enig moment waardevolle input en inzichten gegeven. Dank daarvoor!

Vrienden

Vrienden van de middelbare school; veel dank voor alle mooie momenten in de afgelopen jaren. We gaan al een tijd terug en dat koester ik. Het verassingsonthaal op Schiphol na mijn tijd in Australië blijft mij extra bij. Vrienden van de universiteit; dank jullie wel voor alle gezellige momenten in de kroeg en (verre) vakanties tijdens en na onze studie. Ik wil vooral mijn paranimfen **Joost Wammes** en **Joppe Tra** bedanken; het begon met de bachelorstage en nu zijn we alle drie op weg naar een doctorstitel. Dank voor alle ondersteuning! Mannen van Jules Wilbertus; dank jullie wel voor alle gezellige avonden in de Muis en de momenten dat ik gebruik heb mogen maken van jullie blik als zorgverlener.

Familie

Mijn familie; dank jullie wel voor alle gezelligheid door de jaren heen. *To the Aitkens; I appreciate the warm welcome into your family, thank you!* Mijn ouders, **Ans & John**; dank voor alle steun en de wijze waarop jullie me altijd vrij hebben gelaten in het vinden van mijn eigen pad! En tot slot mijn vrouw, **Clare**; uiteraard wil ik je bedanken voor alle steun en assistentie bij het schrijven van dit proefschrift. Maar vooral wil ik je zeggen dat ik jou en ons zo ontzettend waardeer. We hebben al vele mooie momenten samen gekend; op naar nog vele meer!

ABOUT THE AUTHOR

Jan-Willem Weenink (1987) attended Bilingual Preparatory Scientific Education (TVWO) at Lorentz Lyceum in Arnhem. Subsequently, he pursued a Bachelor and Master of Science in Biomedical Sciences at Radboud University in Nijmegen. He specialised in Health Technology Assessment and took minors in Public Administration and Consultancy. While studying, he worked as an assistant at the 3R Research Centre, where he helped senior researchers conduct systematic reviews on the replacement, refinement and reduction of animal experiments.

In early 2011, he started working as a researcher at IQ healthcare (Radboud University Medical Center). He was involved in numerous projects related to quality and safety in healthcare, and developed a focus on quality indicators and regulation of healthcare services. Between 2014 and 2015, he spent a year in Sydney, Australia, where he held researcher positions at the Bureau of Health Information and the Centre for Primary Health Care and Equity (University of New South Wales). His research focused on performance measurement and organisation of healthcare. During this time, he spent five months as a visiting researcher at the Centre for Health Economics Research and Evaluation (University of Technology Sydney). In mid 2015, he returned to IQ healthcare where he finished his PhD thesis on addressing poor performance of healthcare professionals, and was involved in several projects about quality and safety in healthcare.

In 2017, Jan-Willem took up a position as Assistant Professor at the Erasmus School of Health Policy & Management (Erasmus University Rotterdam) where he is currently involved in teaching the Master of Health Care Management programme and leading research projects on healthcare regulation.

LIST OF PUBLICATIONS

2017

Weenink JW, Kool RB, Bartels RH, Westert GP. Getting back on track: a systematic review of the outcomes of remediation and rehabilitation programmes for healthcare professionals with performance concerns. BMJ Qual Saf. 2017 Dec;26(12):1004-1014.

Weenink JW, Kool RB, Hesselink G, Bartels RH, Westert GP. Prevention of and dealing with poor performance: an interview study about how professional associations aim to support healthcare professionals. Int J Qual Health Care. 2017 Oct 1;29(6):838-844.

Levesque JF, Harris MF, Scott C, Crabtree B, Miller W, Halma LM, Hogg WE, **Weenink JW**, Advocat JR, Gunn J, Russell G. Dimensions and intensity of inter-professional teamwork in primary care: evidence from five international jurisdictions. Fam Pract. 2017 Oct 23.

Corscadden L, Levesque JF, Lewis V, Breton M, Sutherland K, **Weenink JW**, Haggerty J, Russell G. Barriers to accessing primary health care: comparing Australian experiences internationally. Aust J Prim Health. 2017 Jul;23(3):223-228.

Levesque JF, O'Dowd JJM, Ní Shé ÉM, **Weenink JW**, Gunn J. Scoping of models to support population-based regional health planning and management: comparison with the regional operating model in Victoria, Australia. Aust Health Rev. 2017 May;41(2):162-169.

2015

Weenink JW, Westert GP, Schoonhoven L, Wollersheim H, Kool RB. Am I my brother's keeper? A survey of 10 healthcare professions in the Netherlands about experiences with impaired and incompetent colleagues. BMJ Qual Saf. 2015 Jan;24(1):56-64.

Verhoef LM, **Weenink JW**, Winters S, Robben PB, Westert GP, Kool RB. The disciplined healthcare professional: a qualitative interview study on the impact of the disciplinary process and imposed measures in the Netherlands. BMJ Open. 2015 Nov 25;5(11):e009275.

Lugtenberg M, **Weenink JW**, van der Weijden T, Westert GP, Kool RB. Implementation of multiple-domain covering computerized decision support systems in primary care: a focus group study on perceived barriers. BMC Medical Informatics and Decision Making, 2015 Oct 12; 15:82.

Levesque JF, Haggerty JL, Hogg W, Burge F, Wong ST, Katz A, Grimard D, **Weenink JW**, Pineault R. Barriers and Facilitators for Primary Care Reform in Canada: Results from a Deliberative Synthesis across Five Provinces. Healthc Policy. 2015 Nov;11(2):44-57.

2014

Weenink JW, Braspenning J, Wensing M. Patient reported outcome measures (PROMs) in primary care: an observational pilot study of seven generic instruments. BMC Family Practice, 2014 May 6, 15:88

2011

Weenink JW, Lieshout van J, Jung HP, Wensing M. Patient Care Teams in treatment of diabetes and chronic heart failure in primary care: an observational networks study. Implement Science, 2011 Jul 3; 6:66.

BACK ON TRACK

This thesis explores how healthcare professions in the Netherlands address poor performance of individual healthcare professionals, and identifies specific areas in which policy and practice could improve. The following themes are studied: what healthcare professionals do when signalling a poorly performing colleague; the impact of the disciplinary process and imposed measures on healthcare professionals; the outcomes of remediation and rehabilitation programmes for professionals with performance concerns; and support for healthcare professionals in dealing with poor performance of themselves and of colleagues.